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MAUNA KEA ANAINA HOU, KEALOHA PISCIOTTA;
CLARENCE KUKAUAKAHI CHING; DEBORAH J.
WARD; PAUL K. NEVES; and KAHEA: THE
HAWAIIAN-ENVIRONMENTAL ALLIANCE

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:	)	Case No. BLNR-CC-16-002
)	
A Contested Case Hearing Re Conservation	)	MAUNA KEA HUI'S MOTION TO REOPEN
District Use Permit (CDUP) HA-3568 for the	)	HEARING TO HEAR MOTION TO CONFIRM
Thirty Meter Telescope at the Mauna Kea	)	NON-COMPLIANCE WITH CONDITION NO. 4,
Science Reserve, Kaohe Mauka, Hamakua	)	OR, ALTERNATIVELY, PETITION FOR
District, Island of Hawai'i, TMK (3) 4-4-	)	DECLARATORY ORDERS CONCERNING THE
015:009	)	SAME; MEMORANDUM IN SUPPORT OF
	)	MOTION; DECLARATION OF CLARENCE
	)	KUKAUAKAHI CHING; EXHIBITS "01"- "07";
	)	CERTIFICATE OF SERVICE
)	

MAUNA KEA HUI'S MOTION TO REOPEN HEARING TO HEAR MOTION TO CONFIRM NON-
COMPLIANCE WITH CONDITION NO. 4, OR, ALTERNATIVELY, FOR DECLARATORY ORDERS
CONCERNING THE SAME

MAUNA KEA ANAINA HOU, an unincorporated association, KEALOHA PISCIOTTA;
CLARENCE KUKAUAKAHI CHING; DEBORAH J. WARD; PAUL K. NEVES; and KAHEA: THE
HAWAIIAN ENVIRONMENTAL ALLIANCE, a domestic non-profit corporation ("Mauna Kea Hui")

respectfully submit this motion to reopen contested case proceedings for the limited purpose of hearing a motion to confirm Permittee UNIVERSITY OF HAWAI'I HILO's (UHH) has not complied with Condition No. 4 of Conservation District Use Permit (CDUP) HA-3568 (Condition No. 4) in the above captioned proceedings. In the alternative, this submission may be construed as a petition for declaratory orders also concerning UHH's present non-compliance with Condition No. 4 to the extent that such relief would be forthcoming under the alternative procedure. Reopening the contested case hearing is appropriate in light of the reasons UHH is unable to comply with permit conditions and has incorrectly represented to Department administrators that it has so complied. Due process requires the Board to allow all parties to present evidence prior to making a discretionary decision on whether UHH's actions merit extension of deadlines.

This motion is submitted pursuant to Hawai'i Revised Statutes §§ 91-8, 91-9, 91-10, and 91-13.5; and Hawai'i Administrative Rules §§ 13-1-11, -12(d), -27, -34; -5-43.

DATED: Honolulu, Hawai'i

May 24, 2021

RICHARD NAIWIEHA WURDEMAN
ATTORNEY AT LAW, A LAW CORPORATION



LAW OFFICE OF BIANCA ISAKI
BIANCA ISAKI
Attorneys for Petitioners

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:	)	Case No. BLNR-CC-16-002
)	
A Contested Case Hearing Re Conservation District	)	MEMORANDUM IN SUPPORT OF MOTION
Use Permit (CDUP) HA-3568 for the Thirty Meter)	
Telescope at the Mauna Kea Science Reserve, Kaho)	
Mauka, Hamakua District, Island of Hawai'i, TMK)	
(3) 4-4-015:009)	
)	

MEMORANDUM IN SUPPORT OF MOTION

MAUNA KEA ANAINA HOU, an unincorporated association, KEALOHA PISCIOTTA; CLARENCE KUKAUAKAHI CHING; DEBORAH J. WARD; PAUL K. NEVES; and KAHEA: THE HAWAIIAN ENVIRONMENTAL ALLIANCE, a domestic non-profit corporation ("Mauna Kea Hui") respectfully submit this motion to reopen contested case proceedings for the limited purpose of hearing and deciding a motion to confirm Permittee UNIVERSITY OF HAWAI'I HILO's (UHH) has not complied with Condition No. 4 of Conservation District Use Permit (CDUP) HA-3568 (Condition No. 4) in the above captioned proceedings. In the alternative, this submission may be construed as a petition for declaratory orders also concerning UHH's present non-compliance with Condition No. 4 to the extent that such relief would be forthcoming under the alternative procedure. Reopening the contested case hearing is appropriate in light of the reasons UHH is unable to comply with permit conditions and has incorrectly represented to Department administrators that it has so complied. Due process requires the Board to allow all parties to present evidence prior to making a discretionary decision on whether UHH's actions merit extension of deadlines.

I. Background

On September 27, 2017, the Board approved the UHH permit when it issued Findings of Fact, Conclusions of Law, and a Decision and Order in the above-captioned proceedings (2017 Board Order). The UHH permit was thus subject to Standard Condition No. 4, which states:¹

Any work done or construction to be done on the land shall be initiated within two (2) years of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within twelve (12) years of the approval. The UH Hilo shall notify the Department in writing when construction activity is initiated and when it is completed.

¹ Standard Condition No. 4 is required under OCCL rules. HAR §13-5-42(a)(8).

By letter received July 30, 2019, UHH requested a two year extension of time to comply with Standard Condition No. 4 of the permit. Declaration of Clarence Kukauakahi Ching (Ching Decl.) ¶2, Exh. 01. In its request, UHH cited June 25, 2019 testing of GPS equipment and partial survey of the Submillimeter Array access road and July 12, 2019 survey of underground fiber optic and electrical lines as evidence that it had initiated construction in addition to its two-year extension request. Exh. 01 at 4.

By letter dated July 30, 2019, Suzanne Case, chair of the Board, wrote to UHH, recognizing the June 25, 2019 and July 12, 2019 actions and that UHH was unable to move its construction equipment to the project site on July 15, 2019. Ching Decl. ¶2; Exh. 02 at 1-2. Under these facts, the Board chair determined UHH “made a good faith effort to comply with the deadlines contained in the permit” and granted the extension to September 26, 2021 without a hearing.

By letter dated April 28, 2021, UHH wrote to the Administrator of the Office of Conservation and Coastal Lands (OCCL) to notify him of “initiation of work and/ or construction” for the TMT in compliance with General Condition No. 4. Ching Decl. ¶3; Exh. 03. In support of their assertion that construction had initiated, UHH cited activities taking place between June 20, 2019 and July 16, 2019, prior to the Board Chair’s July 30, 2019 letter granting UHH’s extension request. Exh. 03 at 2. In addition to the June 25, 2019 and July 12, 2019 actions, UHH cited inspections for invasive species on July 15, 2019, a “Kick-Off Meeting” between TMT and its contractors to discuss construction on July 8, 2019, and removal of an ahu on June 20, 2019. *Id.*

The April 28, 2021 letter posted to the DLNR website has a stamp stating “approved”, signed by Suzanne Case and dated May 4, 2021. Exh. 03 at 3.

II. Mauna Kea Hui is a party to proceedings on the UHH permit.

CDUP No. HA-3568 permits UHH to allow the Thirty-Meter Telescope International Observatory (TMT) to construct the largest telescope in the world and the tallest building on the island in the fragile ecosystem and highly sacred grounds of the summit of Mauna Kea. Parties have constitutional rights under articles XI, §9 and XII, §7 to a clean and healthful environment and to protections for their traditional and customary practices as has been recognized in several Hawai‘i Supreme Court opinions concerning this permit. *In re Conservation District Use Application HA-3568*, 143 Hawai‘i 379, 431 P.3d 752 (2018); *Mauna Kea Anaina Hou v. Board of Land & Natural Resources*, 136 Hawai‘i 376, 363 P.3d 224 (2015). Mauna Kea Hui members are parties to this contested case, through which they seek to protect their rights.

III. Mauna Kea Hui’s positions and supporting authorities.

Mauna Kea Hui’s positions are: (1) DLNR incorrectly approved UHH’s claims to have initiated

work on the land or TMT construction; (2) the DLNR chairperson's summary approval of UHH's request prejudiced the due process rights of the Mauna Kea Hui because the reasons UHH cannot comply with Condition No. 4 require full examination by the Board, at which time the Board should reconsider its initial grant of the permit in 2017; (3) UHH's letter to OCCL constituted an improper request for a determination of conditions exercised under an unlawful rule; and, (4) UHH failed to provide supportive documentation for its claim to have initiated work on the land or construction of the TMT.

A. DLNR incorrectly approved UHH initiation of work on the land or TMT construction.

Extensions of time to initiate UHH's project were required to be "based on supportive documentation from the applicant." HAR §13-5-43(b). Documents submitted by UHH consisted in a three page letter that rather established UHH previously conceded its actions did not constitute initiation of work on the land or TMT construction and constituted unpermitted removal of structures in the conservation district. Exh. 03. UHH's submissions are deficient to meet requirements of the rule and the DLNR chairperson clearly exceeded her authority in approving UHH's request. *Id.* at 3.

1. *DLNR chair is estopped from asserting actions constituting good cause to extend time to comply with Condition No. 4 also constitute compliance with Condition No. 4.*

UHH's "notice of initiation of work and/or construction" apparently sought approval from DLNR staff for their interpretation of 2019 actions as "work done or construction to be done on the land" in compliance with Condition No. 4. Exh. 03 at 1. DLNR's chair approved the same a day after receipt. *Id.* at 3. Previously by letter dated July 30, 2019, DLNR's chair, then signing as, chair of the Board, recognized substantially the same June 25, 2019 and July 12, 2019 actions as good cause for the first extension of the permit as those UHH again cited in its May 3, 2021 letter as reasons that it had complied with Condition No. 4. *Compare* Exh. 02 at 1-2 and Exh. 03 at 1-2. That is, the DLNR chair's previous determination that 2019 actions constituted good cause for an extension to September 26, 2021 to initiate construction cannot also constitute initiation of construction under the doctrine of judicial estoppel. *See Rosa v. CWJ Contractors, Ltd.*, 4 Haw. App. 210, 218, 664 P.2d 745, 751 (1983) ("[a] party will not be permitted to maintain inconsistent positions or to take a position in regard to a matter which is directly contrary to, or inconsistent with, one previously assumed by him, at least where he had, or was chargeable with, full knowledge of the facts, and another will be prejudiced by his action.") (quoting 28 Am. Jur.2d Estoppel and Waiver § 68, at 694-95 (1966)).

DLNR's July 30, 2019 approval letter request for extension took the position that UHH's testing of GPS equipment, partial survey of the Submillimeter Array access road, and survey of underground fiber

optic and electrical lines did not constitute work or construction on the land, but rather were good cause to extend the time for compliance. Exh. 01. DLNR cannot recognize the same actions as both reasons to extend time for Condition No. 4 compliance and also, nearing the expiry of that extension, as evidence of Condition No. 4 compliance. Doing so clearly exceeds the bounds of reason and violates principles of judicial estoppel.

2. *No construction or work on land was initiated under the plain and ordinary meaning of the terms.*

UHH has not initiated work “on the land” or TMT construction under the plain, ordinary meaning of the terms “work . . . on the land” or “construction to be done[.]” HAR §13-5-42(a)(8) (“Unless otherwise authorized, any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the chairperson, and shall be completed within three years of the approval of such use. The permittee shall notify the department in writing when construction activity is initiated and when it is completed[.]”).

“To effectuate a statute's plain language, its words must be taken in their ordinary and familiar signification, and regard is to be had to their general and popular use. In conducting a plain meaning analysis, [a] court may resort to legal or other well accepted dictionaries as one way to determine the ordinary meaning of certain terms not statutorily defined.” *Wells Fargo Bank, N.A. v. Omiya*, 142 Hawai'i 439, 449-50, 420 P.3d 370, 380-81 (2018). “Construction” is defined to mean the “building of something, typically a large structure.” Lexico.com by *Oxford English Dictionary* (accessed May 20, 2021). Read *in pari materia*, the term “work . . . on the land” did not mean, for instance, sitting on the parcel and working on a laptop, but rather ground-disturbing work associated with the building of the TMT. *Wells Fargo*, 142 Hawai'i at 450, 420 P.3d at 381 (“laws in *pari materia*, or upon the same subject matter, shall be construed with reference to each other. What is clear in one statute may be called upon in aid to explain what is doubtful in another.”).

Activities UHH claim occurred as “work on land” or “construction” are so far outside of commonly understood definitions as to constitute a *de facto* revision of permit conditions that is outside of the DLNR chair’s authority and is not permitted under any rule. UHH April 28, 2021 letter additionally listed inspections for invasive species, meeting with contractors, and removal of an ahu, which also do not constitute initiation of construction. Inspections of vehicles for compliance with invasive species requirements are not “work on the land” and do not construct the TMT. Nor do “discussions” with contractors. All actions alleged to constitute compliance with Condition No. 4 took place prior to UHH’s July 30, 2019 request for extension.

3. *Unpermitted destruction of the ahu supports the need for Board review of its permit approval.*

To the extent UHH's destruction of an "unpermitted" ahu occurred on the TMT site, UHH failed to obtain a permit for this purpose. Permits are required for "land use", which is defined to include: "grading, **removing**, harvesting, dredging, mining, or extraction of any material or natural resource on land" and the "construction, reconstruction, **demolition**, or alteration of any structure, building, or facility on land." HAR §13-5-2 (emphasis added). UHH's alleged unpermitted removal of an ahu did not constitute construction of the TMT and supports the need for further Board oversight.

In any case, UHH's action is more so evidence of its continued inability to initiate construction of the TMT than of having initiated construction or work on the land. Construction of ahu, including and especially those that are unpermitted, are evidence of ongoing and vibrant traditional and cultural practices that have not been adequately addressed or protected under the current permit. Ching Decl. ¶9. That is, the thriving of Hawaiian cultural practice has given rise to expanded awareness and activity on Mauna Kea that includes constructing ahu and protection of these lands as part of a sacred trust. *Id.* ¶10. Additionally, many traditional and customary practitioners either do not recognize permit requirements for their religious practices or lack the ability to obtain special use permits or conservation district use permits for land uses under HAR §13-5-2. *Id.* ¶11. UHH does not reasonably rely on an unreasonable regulation of Kānaka Maoli traditional and customary practices as evidence of its compliance with Condition No. 4.

B. DLNR's summary and unlawful approval of "initiated" construction prejudiced Mauna Kea Hui due process rights to enforcement of permit conditions.

Mauna Kea Hui's rights and interests in the enforcement and proper interpretation of Condition No. 4 as parties to the contested case that resulted in the 2017 Board Order. The Board's 2017 Order represented that permit conditions, including Condition No. 4 would render the TMT project compliant with applicable laws. 2017 Order (FOFs ¶¶131, 156, 441-43, 454, 490, 931; COLs ¶¶133-35, 247, 509). For instance, this Board concluded:

By following the applicable provisions of the various relevant plans, sub-plans, and permit conditions, UH Hilo and the TIO will conserve, protect, and preserve the important natural and cultural resources of the State, will promote the long-term sustainability of those resources, and will promote the health, safety, and welfare of the public.

COL ¶134. UHH's noncompliance with Condition No. 4 undermines the Board's conclusion as to the conservation, protection, and preservation of important natural and cultural resources, amongst other things. The purpose of time limits on conservation district use permits, including UHH's permit, is to allow the Board to revisit applicants' representations of its projects and any changed conditions or

unexpected circumstances. UHH's concession that it has not been able to construct the TMT requires the Board to re-examine the permit.

Changed conditions and unexpected circumstances exist in regard to UHH's permit. The fact of the many thousands of people seeking to express their opposition to further construction on Mauna Kea in 2019 was not before the Board when it issued its 2017 Order. Ching Decl. ¶12. During the 2021 legislative session, the House of Representatives assembled a working group to revisit the propriety of UHH's management of Mauna Kea under House Resolution No. 33. *Id.* ¶13.

Further, project proponents apparently lack at least \$1 billion in funding to construct the TMT and have sought to make up their shortfall through public funding, specifically from the National Science Foundation (NSF). Ching Decl. ¶¶5-6, 14, Exh. 05, 06. Even if NSF provides funding, the TMT would have to conduct federal permitting processes - such as National Environmental Policy Act environmental review and National Historic Preservation Act section 106 consultation - that could span several years. *Id.*

More recently, the Canadian Astronomical Association (CASCA) issued the following statement: "Unless the TMT project has consent from the Native Hawaiians, Canada's astronomical community cannot support its construction on Maunakea." Ching Decl. ¶¶8, Exh. 07. The present potential loss of support from the Canadian partner in the project pivots on TMT project proponents' failure to have sought and obtained consent. *Id.* ¶15. In December 2020, DLNR presented an "Independent Evaluation of the Implementation of the Mauna Kea Comprehensive Plan" that found the University's management entity had not implemented the plan in three areas, including consultation, education, and outreach to the community and Hawaiian cultural practitioners in particular. *Id.* ¶¶7, 16, Exh. 06.

The reasons UHH cannot comply with Condition No. 4 require full examination by the Board, at which time the Board should reconsider its initial grant of the permit in 2017. The DLNR chairperson's summary approval of UHH's request prejudiced the due process rights of the Mauna Kea Hui to raise these issues before the Board as part of this contested case, or alternatively through Board action on a second request for extension of time to comply. HAR §13-5-43(b) ("[t]ime extensions may be granted by the board upon the second or subsequent request for a time extension on a board permit, based on supportive documentation from the applicant.").

C. No rule permits DLNR's approval of UHH's notice of initiation.

UHH's "notice of initiation" sought to short-cut processes for determining the constitution of "work and/or construction on the land", which would otherwise require filing of a petition for declaratory orders, and further to evade requirements that the Board review extensions beyond the first request. HAR

§13-5-43(b). As set forth *supra* Part II.A-B, DLNR lacked authority to issue a de facto revision of permit conditions by “approv[ing]” UHH’s notice of initiation. Under HRS §91-1, a “rule” is defined as:

each agency statement of general or particular applicability and future effect that implements, interprets, or prescribes law or policy, or describes the organization, procedure, or practice requirements of any agency. The term does not include regulations concerning only the internal management of an agency and not affecting private rights of or procedures available to the public, nor does the term include declaratory rulings issued pursuant to section 91-8, nor intra-agency memoranda.

Id. DLNR’s revision of Condition No. 4 constitutes an “agency statement of general or particular applicability and future effect” that implemented the prescribed conditions that are enforceable at law and thus constitutes a “rule” under HRS § 91-1. Agencies are required to promulgate such rules through procedures set forth under HRS §91-3.

Rulemaking is “not a matter of agency discretion . . . every agency action is ‘a recognizable rule or an order’ under the [Florida Administrative Procedures Act] or is ‘incipiently a rule or order.’” *Fla. Stat. S. Baptist Hosp. of Fla. v. Agency for Health Care Admin.*, 270 So. 3d 488, 503 (Fla. App. 2019) quoting Florida Statutes § 120.54(1) & *Friends of Hatchineha, Inc. v. State, Dep’t of Env’tl. Regulation*, 580 So.2d 267, 271 (Fla. 1st DCA 1991). “[T]he purpose of rule-making is to govern the future conduct of groups and individuals[.]” *Pila’a 400, LLC v. Bd. of Land & Nat. Res.*, 132 Hawai’i 247, 264, 320 P.3d 912, 929 (2014).

Whether or not DLNR has a written description of the DLNR chairperson’s ability to issue condition revisions is of no consequence to whether the chair operated under an unlawful rule. *See Nuuanu Valley Ass’n v. City of Honolulu*, 119 Hawai’i 90, 99-100, 194 P.3d 531, 540-41 (2008) (city’s unwritten policy of refusing to disclose records under circumstances was a rule and not “internal management” because the policy “affects the procedures available to the public, and implements, interprets, or prescribes policy, or describes the procedure or practice requirements of” the city); *Hawai’i Prince Hotel Waikiki Corp. v. City & County of Honolulu*, 89 Hawai’i 381, 393, 974 P.2d 21, 33 (1999) (a city appraiser’s methodology was held “clearly a ‘rule’ within the meaning of HRS § 91-1(4)” because it was based on the appraiser’s interpretation of ordinances and would “undoubtedly affect[] the assessed value of” existing and future properties), *declined to overrule in Alford v. City & County of Honolulu*, 109 Hawai’i 14, 122 P.3d 809 (2005).

The Chair’s summary approval of UHH’s “notice of initiation” operated under an unlawful rule for failure to have been properly promulgated under HRS § 91-3 procedures. The Mauna Kea Hui pray this Board strike the Chair’s approval as having been exercised under unlawful rules. UHH’s de facto request

for revision of permit conditions should be brought before the Board as part of contested case proceedings or, at minimum, through a request for a second time extension to comply with permit conditions.

D. UHH failed to submit supportive documentation establishing it initiated work on the land or construction of the TMT.

Extensions of time to initiate UHH's project were require to be "based on supportive documentation from the applicant." HAR §13-5-43(b). Documents submitted by UHH consisted in a three page letter that rather established UHH previously conceded its actions did not constitute initiation of work on the land or TMT construction and constituted unpermitted removal of structures in the conservation district. Exh. 03. UHH's submissions are deficient to meet requirements of the rule and the DLNR chairperson clearly exceeded her authority in approving UHH's request. *Id.* at 3.

IV. Alternative relief in the form of declaratory orders requested

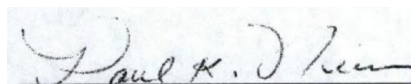
Should the Board seek an alternative ground for granting requested relief, Mauna Kea Hui seeks declaratory orders stating UHH has not initiated construction so as to comply with Condition No. 4. The Board is empowered to grant declaratory orders. HRS §91-8.

The Mauna Kea Hui is represented by co-counsel, whose names, addresses, and telephone numbers are provided above. HAR § 13-1-27(b)(1). Petitioners are parties with legal rights and interests described *supra* Part I, and are submitting this petition to enforce Condition No. 4 of the permit. *Id.*(b)(2).

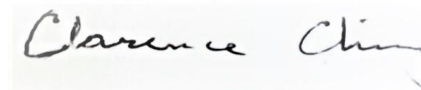
In question are the DLNR chairperson's approval of UHH's April 28, 2021 request for confirmation of its notice of initiation and the application of HAR §13-5-43(b) (time extensions) and HAR §13-5-42(a)(8) (standard conditions), as set forth *supra* Part III; and that the DLNR chair's approval of UHH's request for permit condition revisions constituted a "rule" that is required to be promulgated under procedures set forth by HRS §91-3, as set forth *supra* Part IV. HAR § 13-1-27(b)(3). Parts III and IV *supra* in this memorandum of authorities also set forth Petitioner's positions on the correct interpretation and application of these rules and authorities to the facts before the Board. HAR § 13-1-27(b)(4), (5). Finally, each petitioner's signature is affixed below:



KEALOHA PISCIOтта, President
MAUNA KEA ANAINA HOU, Petitioner



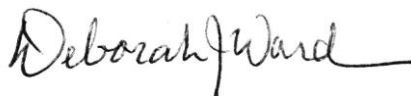
PAUL NEVES, Petitioner



CLARENCE KŪKAUAKAHI CHING, Petitioner



SHELLEY MUNEOKA, Treasurer,
KAHEA: THE HAWAIIAN-ENVIRONMENTAL
ALLIANCE, Petitioner



DEBORAH J. WARD, Petitioner

V. Conclusion

For the foregoing reasons, the Mauna Kea Hui requests this Board reopen its contested case hearings for the limited purpose of hearing and deciding this motion to confirm UHH's noncompliance with Condition No. 4, or in the alternative, entering declaratory orders confirming the same.

DATED: Honolulu, Hawai'i

May 24, 2021

/s/ Richard Naiwieha Wurdeman
RICHARD NAIWIEHA WURDEMAN
ATTORNEY AT LAW, A LAW CORPORATION



LAW OFFICE OF BIANCA ISAKI
BIANCA ISAKI
Attorneys for the Mauna Kea Hui

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A Contested Case Hearing Re Conservation District)	DECLARATION OF CLARENCE
Use Permit (CDUP) HA-3568 for the Thirty Meter	)	KUKAUAKAHI CHING
Telescope at the Mauna Kea Science Reserve, Kaohe)	
Mauka, Hamakua District, Island of Hawai'i, TMK)	
(3) 4-4-015:009)	
)	

DECLARATION OF CLARENCE KUKAUAKAHI CHING

I, CLARENCE KUKAUAKAHI CHING, declare under penalty of law that the following is true and correct.

1. I am a member of the Mauna Kea Hui, which includes MAUNA KEA ANAINA HOU, KEALOHA PISCIOTTA; CLARENCE KUKAUAKAHI CHING; DEBORAH J. WARD; PAUL K. NEVES; and KAHEA: THE HAWAIIAN-ENVIRONMENTAL ALLIANCE in the above entitled proceedings.

2. Attached as Exhibit "01" is a true and correct copy of the letter from Bonnie Irwin, Chancellor of the University of Hawai'i at Hilo, to Suzanne Case, Chair of the Board of Land and Natural Resources, dated July 30, 2019, requesting a two year extension of time to comply with Standard Condition No. 4 of the permit, which was obtained from the DLNR Office of Conservation and Coastal Lands (OCCL) online file repository *available at:* https://dlnr.hawaii.gov/occl/files/2019/08/Extension-HA-20-04.pdf?fbclid=IwAR2JXP_ht-juyKcvJLXHMHYGEe2o07r-7Uy_My7INelh_FgHu3BXP41LFiE

3. Attached as Exhibit "02" is a true and correct copy of the letter from Suzanne Case, Chair of the Board of Land and Natural Resources, to Bonnie Irwin, Chancellor of the University of Hawai'i at Hilo (UHH), dated July 30, 2019, granting the latter's two year extension of time to comply with Standard Condition No. 4 of the permit, which letter was also obtained from the OCCL online file repository.

4. Attached as Exhibit "03" is a true and correct copy of the letter UHH wrote to the OCCL Administrator to notify him of "initiation of work and/ or construction" for the TMT in compliance with General Condition No. 4, dated April 28, 2021, obtained from the OCCL online file repository *available at:* https://dlnr.hawaii.gov/occl/files/2021/05/3568-TMT-Notice-of-start-of-construction-May-2021.pdf?fbclid=IwAR1pWFJLjbLkguhUfVGmRh_oF98HLMq_OX5bgOTsQSaAuhwb47TBICRnHxg.

5. Attached as Exhibit "04" is a true and correct copy of the National Science Foundation's

Statement on U.S. Extremely Large Telescope program proposals, published on August 13, 2020 *available at:* https://www.nsf.gov/news/news_summ.jsp?cntn_id=301034

6. Attached as Exhibit “05” is a true and correct copy of the Associated Press news article titled, “Science foundation discusses funding giant Hawaii telescope,” published on August 21, 2020 *available at:* <https://apnews.com/article/technology-hi-state-wire-business-travel-us-news-dafc755bda17dcb5d78f2f7f14b7894c>

7. Attached as Exhibit “06” is a true and correct copy of the December 2020, DLNR “Independent Evaluation of the Implementation of the Mauna Kea Comprehensive Plan” *available at:* <https://dlnr.hawaii.gov/occl/files/2020/12/Kuiwalu-Report.pdf>.

8. Attached as Exhibit “07” is a true and correct copy of “Commending CASCA’s Decision Not to Support TMT Without Native Hawaiian Consent,” (accessed May 19, 2021) *available at:* <https://kanaeokana.net/noconsent>.

9. Construction of ahu, including and especially those that are unpermitted, are evidence of ongoing and vibrant traditional and cultural practices that have not been adequately addressed or protected under the current permit.

10. The thriving of Hawaiian cultural practice has given rise to expanded awareness and activity on Mauna Kea that includes constructing ahu and protection of these lands as part of a sacred trust.

11. Additionally, many traditional and customary practitioners either do not recognize permit requirements for their religious practices or lack the ability to obtain special use permits or conservation district use permits for land uses under HAR §13-5-2.

12. The fact that many thousands of people seeking to express their opposition to further construction on Mauna Kea in 2019 was not before the Board when it issued its 2017 Order.

13. During the 2021 legislative session, the Hawai‘i state House of Representatives assembled a working group to revisit the propriety of UHH’s management of Mauna Kea under House Resolution No. 33.

14. Project proponents apparently lack \$1 billion in funding to construct the TMT and have sought to make up their shortfall through public funding, specifically from the National Science Foundation (NSF). Even if the NSF provides such funding, the TMT would have to conduct federal permitting processes - such as National Environmental Policy Act environmental review and National Historic Preservation Act section 106 consultation - that could span several years.

15. More recently, the Canadian Astronomical Association (CASCA) issued the following

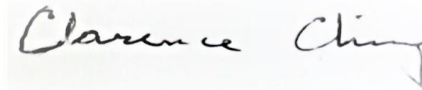
statement: “Unless the TMT project has consent from the Native Hawaiians, Canada’s astronomical community cannot support its construction on Maunakea.” There is now the potential loss of support from the Canadian partner in the project that pivots on TMT project proponents’ failure to have sought and obtained consent.

16. In December 2020, DLNR presented an “Independent Evaluation of the Implementation of the Mauna Kea Comprehensive Plan” that found the University’s management entity had not implemented the plan in three areas, including consultation, education, and outreach to the community and Hawaiian cultural practitioners in particular.

DECLARANT FURTHER SAYETH NAUGHT

DATED: Kamuela, Hawai‘i

May 21, 2021

A handwritten signature in black ink that reads "Clarence Ching". The signature is written in a cursive, flowing style.

CLARENCE KUKAUAKAHI CHING
DECLARANT



UNIVERSITY
of HAWAII
HILO

July 30, 2019

Ms. Suzanne Case
Chairperson
Board of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl Street, Room 130
Honolulu, Hawai'i 96813

RECEIVED
2019 JUL 30 AM 9:44
DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII

Subject: Request for Extension of Time for General Condition No. 4 of Conservation District Use Permit (CDUP) HA-3568 (Thirty Meter Telescope) at the Mauna Kea Science Reserve, Ka'ohe Mauka, Hamakua, Hawai'i; TMK (3) 4-4-015:009

Dear Chairperson Case:

As you are aware, the University of Hawai'i ("UH") is the permittee with respect to Conservation District Use Permit ("CDUP") HA-3568, which the Board of Land and Natural Resources ("BLNR") issued on September 28, 2017 for the Thirty Meter Telescope (the "TMT Project").

General Condition No. 4 of the CDUP ("General Condition No. 4") states that:

Any work done or construction to be done on the land shall be initiated within two (2) years of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within twelve (12) years of the approval. The UH Hilo shall notify the Department in writing when construction activity is initiated and when it is completed[.]

Although BLNR issued its decision and order ("D&O") approving the CDUP on September 28, 2017, BLNR (as evidenced by the certificate of service attached to the D&O) served the requisite certified copy of the D&O upon the parties via U.S. mail on October 4, 2017. See HAR § 13-1-38 (providing that "[d]ecisions and orders shall be served by mailing certified copies thereof to each party at the party's address of record"). By operation of HAR §13-1-13.2, "[w]henever a person has the right or is required to do some act within a prescribed period after the service of a document upon the person and the document is served by mail, two days shall be added to the prescribed period."

200 W. Kāwili St.
Hilo, Hawai'i 96720-4091
Telephone: (808) 932-7348
Fax: (808) 932-7338
hilo.hawaii.edu

EXHIBIT "01"

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In addition, HAR § 13-1-13 provides that the computation of time for BLNR's Rules of Practice and Procedure is governed by Hawaii Revised Statutes ("HRS") § 1-29. In turn HRS § 1-29 provides in relevant part that: "The time in which any act provided by law is to be done is computed by excluding the first day and including the last, unless the last day is a Sunday or holiday and then it is also excluded."

Applying the foregoing, UH understands that the deadline to "initiate[]" any "work" or "construction" on the permitted land (the TMT Project site) pursuant to General Condition No. 4 is currently Monday, October 7, 2019 (*i.e.*, two calendar years after service of the certified copy of the D&O on October 4, 2017, plus two additional calendar days by operation of HAR § 13-1-13.2 because the certified copy was sent via U.S. mail, plus one additional day pursuant to HAR § 13-1-13 and HRS § 1-29 because October 6, 2019 is a Sunday). For the avoidance of doubt, UH respectfully requests BLNR's confirmation of the current deadline, whether it is October 7, 2019, or another date.

As described below, and based on information provided by TMT International Observatory LLC ("TIO"), UH understands, as of the date of this letter, that "work" and/or "construction" has in fact been initiated at the TMT Project site, such that the two year deadline prescribed by General Condition No. 4 has been met. Without waiving the foregoing, and given the current limitations on access to the site, however, TIO has asked that UH request, out of an abundance of caution, a two-year extension of the current deadline to initiate construction, which by our calculation would extend the deadline to, and including, October 7, 2021.¹ This letter constitutes UH's request for such an extension.

UH's request is governed by HAR § 13-5-43(a) and (b), which provide:

§13-5-43 Time extensions. (a) Permittees may request time extensions for the purpose of extending the period of time to comply with the conditions of a permit.

(b) Time extensions may be granted as determined by the chairperson on all departmental permits and on the first request for extension of a board permit of up to two years to initiate or complete a project, based on supportive documentation from the applicant.²

The CDUP is a "board permit" because it is "a permit approved by the board of land and natural resources." See HAR § 13-5-2. This is UH's first request for an extension

¹ See letter of July 29, 2019, from J. Douglas Ing to Carrie Okinaga, attached hereto as Attachment 1.

² The various documents related to the legal challenges and eventual granting of the CDUP, referred to in this letter (most if not all of which are part of DLNR's records), and Attachment 1 hereto provide supportive documentation related to this request

of time "to initiate" the "project," and thus pursuant to HAR § 13-5-43(b), the BLNR chairperson has the authority to consider and grant the extension for up to two years.

UH believes that this request for an extension of the two year deadline is reasonable and appropriate under the circumstances, and that good cause exists to grant the extension.

As BLNR is aware, following the issuance of the CDUP on September 28, 2017, the petitioners and interveners in the underlying contested case hearing (collectively, the "Petitioners") filed various appeals of BLNR's D&O granting the CDUP with the Hawai'i Supreme Court. Despite the court's expedited consideration of the appeals, the appellate process extended for over a year after the issuance of the CDUP. More specifically, following a lengthy briefing process, in which Petitioners filed several procedural motions and extensions to file their briefs, the briefing in the principal appeals was completed on May 3, 2018. The Hawai'i Supreme Court heard oral argument on the appeals on June 21, 2018 and issued the opinion of the court affirming the D&O on October 30, 2018. Following the Petitioners' motions for reconsideration, the Supreme Court issued amended opinions on November 30, 2018, and its judgments on appeal on December 26, 2018.

Following the affirmance of the CDUP, UH understands that TIO accelerated its preparation to resume construction, including working diligently with the Office of Maunakea Management ("OMKM") and the Department of Land and Natural Resources ("DLNR") to fulfill compliance requirements; applying to government agencies to secure the permits necessary to resume construction; and preparing for access to the site.

Among other communications and meetings, the civil construction package for the TMT Project was submitted to DLNR for review on February 4, 2019 pursuant to General Condition No. 5 of the CDUP, which requires the submission of "construction and grading plans and specifications" for the project to DLNR "for approval for consistency with the conditions of the permit and the declarations set forth in the permit application." Thereafter, staff from DLNR's Office of Conservation and Coastal Lands ("OCCL") met with TIO's design team on March 11, 2019 to review and discuss the civil construction package and other construction documents.

On April 8, 2019, pursuant to Special Condition No. 32 of the CDUP (which provides, *inter alia*, that DLNR will issue a notice to proceed once it "demonstrates [to DLNR] compliance with the preconstruction conditions and mitigation measures contained in the decision"), UH requested a notice to proceed from DLNR. In its request, UH informed DLNR that UH had received a notice from TIO indicating its intent to initiate construction and that OMKM "is satisfied that the TMT project has complied with all the pre-construction conditions and mitigation measures related to the start of construction for the Phase I, Civil Package."

Concurrently with the foregoing, UH understands that TIO worked diligently to obtain, renew or extend all other government permits necessary to resume construction, and

that the last such permit necessary to proceed, the grading and stockpiling permit, was issued on May 31, 2019.

On June 19, 2019, DLNR issued the Notice to Proceed for the TMT Project, stating that "[b]ased on review of the information [UH] provided, the TMT project has met the preconstruction requirements contained in the CDUP and associated management plan. The Department thus issues TMT a Notice to Proceed."

UH is aware that TIO planned, and was ready and able, to begin moving its heavy construction equipment to the TMT Project site during the week of July 15, 2019. As BLNR is aware, however, TIO was unable to move the equipment to the site due to ongoing demonstrations at the Daniel K. Inouye Highway and Mauna Kea Access Road, which, to date, are continuing.

Although, due to circumstances beyond TIO's and UH's control, TIO has not been able to move its heavy construction equipment to the TMT Project site to date, UH reasonably believes that TIO has initiated "work" and/or "construction" at the site as of the date of this letter. As reported by TIO, the work at the TMT Project site following the issuance of the Notice to Proceed through the date of this letter has included among other things the following:

- June 25, 2019 - Goodfellow Bros. Inc. ("GBI") and M3 Construction Management ("M3") met at the project site to test the GPS equipment, and verify the benchmark locations and coordinates with the existing site survey done by Engineering Partners. A partial survey of the Submillimeter Array ("SMA") access road was completed for accuracy in comparison to the owner-furnished survey. Personnel from the SMA and James Clerk Maxwell radio telescopes joined the construction crew to coordinate the GPS system and verify the impact to the telescope operations; and
- July 12, 2019 - To mitigate the risk of damaging the SMA fiber optics, GBI, M3 and SMA representatives located and surveyed the underground fiber optic and electrical lines in preparation of mobilizing the heavy equipment to the project site.

Given the foregoing as reported by TIO, UH believes that these activities at the TMT Project site to date are reasonably sufficient to meet the provision of General Condition No. 4 that "[a]ny work done or construction to be done on the land shall be initiated within two (2) years of the approval of such use[.]"

Without waiver of the foregoing position, having consulted with TIO, and out of an abundance of caution, however, UH formally requests a two-year extension of the construction commencement deadline provision in General Condition No. 4. As described in detail above, circumstances beyond UH's and TIO's control, including an

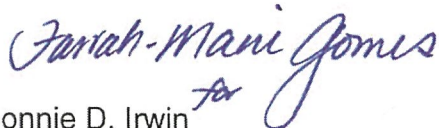
Ms. Suzanne Case
July 30, 2019
Page 5

appellate process that took over a year to conclude and the current demonstrations preventing access to the site, have all substantially delayed TIO's efforts to move its heavy equipment to the site and continue substantial construction activities. As also noted above, TIO has been diligent and timely in its efforts to resume construction, and has worked cooperatively and expeditiously with OMKM, DLNR and other government agencies to obtain the Notice to Proceed and all other required permits to construct the TMT Project at the site. In short, UH believes that TIO has demonstrated, and has acted in, good faith in its substantial efforts to timely move this project forward.

Based the foregoing, UH respectfully requests, pursuant to HAR § 13-5-43(a) and (b), that this request for an extension of time be granted, and that the deadline prescribed by General Condition No. 4 of CDUP HA-3568 to initiate work or construction at the TMT Project site be formally extended to, and including, October 7, 2021.

Thank you for your attention to this matter, and please contact me with any questions.

Sincerely yours,

A handwritten signature in blue ink that reads "Farrah-Mani Gomes". There is a small mark below the signature that appears to be "for".

Bonnie D. Irwin
Chancellor

c: Office of Maunakea Management
TMT International Observatory LLC

July 29, 2019

VIA EMAIL

Carrie Okinaga, Esq.
Vice President for Legal Affairs
University General Counsel
University of Hawaii
2444 Dole Street
Bachman Hall 110
Honolulu, Hawaii 96822

**Re: Request for Extension of Time for General Condition No. 4 of
Conservation District Use Permit (CDUP) HA-3568 (Thirty Meter Telescope)
at the Mauna Kea Science Reserve, Ka'ohc Mauka, Hamakua, Hawai'i;
TMK (3) 4-4-015:009**

Dear Ms. Okinaga:

As you are aware, the University of Hawaii ("UH") is the permittee with respect to Conservation District Use Permit ("CDUP") HA-3568, which the Board of Land and Natural Resources ("BLNR") issued on September 28, 2017 for the Thirty Meter Telescope project (the "TMT Project").

General Condition No. 4 of the CDUP provides, among other requirements, that "[a]ny work done or construction to be done on the land shall be initiated within two (2) years of the approval of such use[.]" By operation of the applicable administrative rules, TMT International Observatory LLC ("TIO") understands that the current deadline to "initiate" the work or construction at the TMT Project site is October 7, 2019.

TIO has worked expeditiously and diligently to meet the deadline to commence work at the TMT Project site, including working cooperatively with Office of Maunakea Management and the Department of Land and Natural Resources to obtain the Notice to Proceed and timely obtaining all other necessary permits required to resume construction. TIO also believes that, since the issuance of the Notice to Proceed, it has in fact "initiated" "work" and/or "construction" at the TMT Project site through various activities at the site, including the removal of unpermitted ahu, and by conducting various site surveys. That said, given

Carrie Okinaga, Esq.
July 29, 2019
Page 2

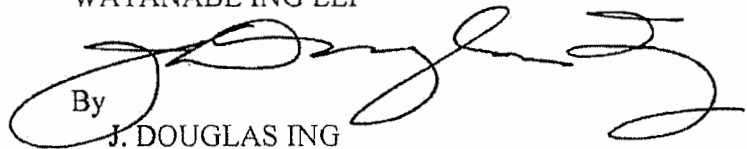
circumstances beyond TIO's control (including a lengthy appellate process and the current situation involving protestors blocking access to the site), TIO's heavy equipment access to the site has been substantially delayed.

Given the foregoing, and out of an abundance of caution, TIO respectfully requests that UH request that the chairperson of the Board of Land and Natural Resources formally extend the deadline in General Condition No. 4 by a period of two years, or until October 7, 2021. While TIO does not waive, and expressly preserves, its position that work has been initiated in compliance with the deadline in General Condition No. 4, TIO believes that a formal extension of the deadline will allow the parties to appropriately focus on other matters required to move this project forward.

Thank you for your attention to this matter, and please contact me with any questions.

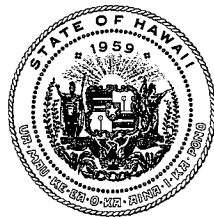
Very truly yours;

WATANABE ING LLP

By 
J. DOUGLAS ING

cc: Edward Stone
Gary Sanders
Office of Mauna Kea Management
Gary Takeuchi

DAVID Y. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

OFFICE OF CONSERVATION AND COASTAL LANDS

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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BOATING AND OCEAN RECREATION
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

ref:OCCL:MC

Extension HA-20-04

Bonnie D. Irwin, Chancellor
Office of the Chancellor
University of Hawai'i at Hilo
200 W. Kāwili Street
Hilo, HI 96720-4091

JUL 30 2019

Dear Ms. Irwin,

SUBJECT: EXTENSION OF PROCESSING DEADLINES: Conservation District Use Permit (CDUP) HA-3568
Thirty Meter Telescope (TMT)
Mauna Kea Science Reserve, Ka'ohē Mauka, Hāmākua District, Hawai'i
Tax Map Key (TMK) parcel (3) 4-4-015:009

The Department of Land and Natural Resources (DLNR) has reviewed your request for a two-year extension on the construction deadlines contained in Conservation District Use Permit (CDUP) HA-3568 regarding the Thirty Meter Telescope on the above subject parcel.

The permit was approved by the Board of Land and Natural Resources via a Decision and Order on September 27, 2017. Pursuant to General Condition 4 of the CDUP:

Any work done or construction to be done on the land shall be initiated within two (2) years of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within twelve (12) years of the approval. The UH Hilo shall notify the Department in writing when construction activity is initiated and when it is completed.

On June 19, 2019 DLNR's Office of Conservation and Coastal Lands (OCCL) approved the Civil Package construction plans, and the Department issued TMT a Notice to Proceed with construction.

On July 30, 2019 the University notified the Department that the following work has been conducted since the Notice to Proceed was issued:

- On June 25, 2019 contractors met at the project site to test GPS equipment and to verify the benchmark locations and coordinates with the existing site survey.
- On the same date a partial survey of the access road was completed.
- On July 12, 2019 contractors met with representatives from the Smithsonian Submillimeter Array (SMA) to locate and survey the SMA fiber optics and electric lines in order to mitigate the risk of damage to the cables when heavy equipment is mobilized at the site.

EXHIBIT "02"

- During the week of July 15, 2019, the permittee attempted to move construction equipment to the project site; however, the permittee was unable to access the site due to on-going demonstrations along the Daniel K. Inouye Highway and the Mauana Kea Access Road.

The University is requesting a two-year extension to the initiation deadline contained in CDUP HA-3568 for two reasons:

1. Construction was delayed for thirteen months after the Board issued their Decision and Order while the permit went through the appellate process; the permit was finally upheld by the Supreme Court of the State of Hawai'i on October 30, 2018; and
2. Demonstrations along the access road to the summit of Mauna Kea have prevented construction crews from accessing the site.

Extension Request

A two year-extension of the permit conditions would give a new initiation deadline of September 26, 2021.

Discussion

The authority to grant time extensions on this permit lies with the Chair of the Board of Land and Natural Resources, pursuant to Hawai'i Administrative Rules (HAR) § 13-5-43 Time Extensions (a) *Permittees may request time extensions for the purpose of extending the period of time to comply with the conditions of the permit*, and (b) *Time extensions may be granted as determined by the chairperson on all departmental permits and on the first request for an extension of a board permit of up to two years to imitate or complete a project, based on supportive documentation from the applicant.*

The University has submitted documentation that shows that they have made a good faith effort to comply with the deadlines contained in the permit, and the Department has no objections to issuing the requested time extension.

Decision

The deadline to initiate construction set forth in General Condition 4 of Conservation District Use Permit (CDUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Ka'ohe Mauka, Hāmakua District, Hawai'i, TMK (3) 4-4-015:009 is extended to September 26, 2021.

Sincerely,



SUZANNE D. CASE, Chairperson
Board of Land and Natural Resources



UNIVERSITY
of HAWAII
HILO

University of Hawai'i at Hilo Administration
Office of the Chancellor

OFFICE OF CONSERVATION
AND COASTAL LANDS

2021 MAY -3 P 12:19

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

April 28, 2021

Mr. Samuel Lemmo
Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
1151 Punchbowl Street, Room 131
Honolulu, Hawai'i 96813
sam.j.lemmo@hawaii.gov

Subject: Notice of Initiation of Work and/or Construction for the Thirty Meter Telescope Project, CDUP-HA-3568, General Condition No. 4

Dear Mr. Lemmo:

Pursuant to and in compliance with General Condition No. 4 of Conservation District Use Permit ("CDUP") HA-3568, the University of Hawai'i at Hilo ("UH Hilo") hereby notifies the Department of Land and Natural Resources ("DLNR") that (1) work done, and/or (2) construction done on the land (collectively "Project Activity") for the Thirty Meter Telescope Project ("TMT Project") was initiated within two (2) years of the Board of Land and Natural Resources' ("BLNR") approval of CDUP HA-3568. As detailed below, Project Activity was initiated by no later than July 16, 2019.

General Condition No. 4 of CDUP HA-3568 provides:

Any work done or construction to be done on the land shall be initiated within two (2) years of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within twelve (12) years of the approval. The UH Hilo shall notify the Department in writing when construction activity is initiated and when it is completed.

BLNR approved CDUP HA-3568 on September 28, 2017. On June 19, 2019, DLNR issued the Notice to Proceed for the TMT Project, stating that "[b]ased on review of the information

EXHIBIT "03"

200 W. Kāwili St.
Hilo, Hawai'i 96720-4091
Telephone: (808) 932-7348
Fax: (808) 932-7338
hilo.hawaii.edu

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[UH] provided, the TMT project has met the preconstruction requirements contained in the CDUP and associated management plan. The Department thus issues TMT a Notice to Proceed.”

Subsequent to the issuance of the Notice to Proceed, and before the September 28, 2019 initiation deadline, the following Project Activity was initiated at the TMT Project site or in preparation for Project Activity to be performed at the TMT Project site:

- **June 20, 2019**—Unpermitted ahu removed.
- **June 25, 2019**—Goodfellow Bros, Inc. (“GBI”), the civil contractor for the TMT Project, and M3 Construction Management (“M3”), the construction manager for the TMT Project, met at the project site to test the GPS equipment, and verify the benchmark locations and coordinates with the existing site survey done by Engineering Partners. A partial survey of the Submillimeter Array (“SMA”) access road was completed for accuracy in comparison to the owner-furnished survey. Personnel from the SMA and James Clerk Maxwell radio telescopes joined the construction crew to coordinate the GPS system and verify the impact on the telescope operations. This was done to confirm on the ground boundaries of the access road and project site;
- **July 8, 2019**—Kick-Off Meeting between TMT International Observatory, LLC (“TIO”), GBI, M3, subcontractors, and others to discuss construction procedures, safety protocols, other requirements, and special concerns;
- **July 12, 2019**—GBI, M3, and SMA representatives located and surveyed the underground fiber optic and electrical lines in preparation of mobilizing the heavy equipment to the TMT project site to mitigate the risk of damaging the SMA fiber optics;
- **July 15, 2019**—The Big Island Invasive Species Committee (“BIISC”) inspected TIO construction equipment and vehicles. BIISC provides invasive species compliance certificates; and
- **July 16, 2019**—TIO attempted to access the TMT Project site. TIO mobilized 18 vehicles and equipment, including a 980 Loader, D6 Dozer, WA320 Loader, and Mini-Ex/Roller. Persons objecting to the TMT Project blocked TIO’s access to the TMT Project site for several months.

The above Project Activity was performed in accordance with DLNR approved construction plans.

Based on the above, UH Hilo reasonably believes and hereby notifies DLNR that Project Activity was initiated by no later than July 16, 2019.¹ Your acknowledgment and concurrence of

¹ By way of correspondence to Chairperson Suzanne Case, dated July 30, 2019, UH Hilo requested an extension of time as to General Condition No. 4. In making the request, UH Hilo stated that “based on information provided by [TIO], UH understands, as of the date of this letter, that ‘work’ and/or ‘construction’ has in fact been initiated at the TMT Project site, such

Mr. Samuel Lemmo

April 28, 2021

Page 3

the TMT Project's initiation of Project Activity are respectfully requested. Should you have any questions or require additional information, please contact me at 808-932-7348 or by email at bdirwin@hawaii.edu.



Bonnie D. Irwin, Chancellor
University of Hawai'i at Hilo

cc: Fengchuan Liu, Project Manager (acting), TMT, fliu@tmt.org

APPROVED

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Office of Conservation and Coastal Lands

BY: by Leo Case

DATE: 5/4/2021

REFERENCE NO. _____

that the two year deadline prescribed by General Condition No. 4 has been met." Id. at 2. UH Hilo's extension request was made "[w]ithout waiving the foregoing." Id.

TIO also clearly stated in its July 29, 2019 correspondence to UH Hilo, which was attached as an exhibit to UH Hilo's July 30, 2019 correspondence, that "TIO does not waive, and expressly preserves, its position that work has been initiated in compliance with the deadline in General Condition No. 4." Id.



NSF statement on U.S. Extremely Large Telescope program proposals

August 13, 2020

Due to Privacy Act restrictions, NSF typically cannot identify the organizations or associated details of funding proposals it receives. However, three organizations publicly disclosed their submission of proposals to NSF for planning and design of a U.S. Extremely Large Telescope program. NSF can, therefore, confirm receipt of proposals from the organizations developing the Giant Magellan Telescope (GMT), the Thirty Meter Telescope (TMT), and NSF's NOIRLab (a federally funded research and development center).

NSF understands that potential construction of TMT on Maunakea is a sensitive issue and plans to engage in early and informal outreach efforts with stakeholders, including Native Hawaiians, to listen to and seek an understanding of their viewpoints. If NSF ultimately initiates a formal federal environmental review process, this advance outreach would serve as a precursor to it.

NSF's receipt of a proposal and its initiation of an informal outreach effort are not reflective of NSF's position regarding any project. To request a discussion with NSF related to Maunakea and potential NSF involvement in the TMT project, please contact us by e-mail at: AST-MK@nsf.gov (<mailto:AST-MK@nsf.gov>).

The U.S. National Science Foundation propels the nation forward by advancing fundamental research in all fields of science and engineering. NSF supports research and people by providing facilities, instruments and funding to support their ingenuity and sustain the U.S. as a global leader in research and innovation. With a fiscal year 2021 budget of \$8.5 billion, NSF funds reach all 50 states through grants to nearly 2,000 colleges, universities and institutions. Each year, NSF receives more than 40,000 competitive proposals and makes about 11,000 new awards. Those awards include support for cooperative research with industry, Arctic and Antarctic research and operations, and U.S. participation in international scientific efforts.

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Statistics: [nsf.gov/statistics/](https://www.nsf.gov/statistics/) ([/statistics/](https://www.nsf.gov/statistics/)).

Awards database: [nsf.gov/awardsearch/](https://www.nsf.gov/awardsearch/) ([/awardsearch/](https://www.nsf.gov/awardsearch/)).

EXHIBIT "04"



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Science foundation discusses funding giant Hawaii telescope

August 21, 2020



HONOLULU (AP) — The National Science Foundation has launched an informal outreach to Hawaii about possible funding efforts for the stalled Thirty Meter Telescope project.

The effort by the nation's top funder of basic research could lead to a huge influx of cash for the astronomy

EXHIBIT "05"

Thursday.

Funding efforts could also trigger a regulatory process adding two years or more to a construction timeline that is far behind schedule. The project recently announced the start of construction was delayed until spring.

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The foundation said in a statement it plans to reach out to “stakeholders, including Native Hawaiians,” to understand their viewpoints.

Protesters blocked the 6.27-mile (10-kilometer) access road to the summit of Mauna Kea, Hawaii’s tallest mountain, in a demonstration against the project from July through December 2019. Telescope opponents said the project would desecrate land considered sacred by some Native Hawaiians.

The foundation said its outreach would serve as a precursor to a formal federal environmental review process.

The Thirty Meter Telescope project has teamed with the Giant Magellan Telescope planned in Chile and the U.S. National Optical-Infrared Astronomy Research Laboratory to propose the U.S. Extremely Large Telescope Program.

The partnership, which is partly an effort to obtain additional funding, proposes to offer U.S. astronomers complete viewing coverage of the skies in the Northern and Southern hemispheres.

Thirty Meter Telescope officials recently submitted a planning and design proposal to the science foundation aimed at obtaining major funding for \$1 billion added to the project’s cost due to construction delays, inflation and other factors.

Under the proposal, the foundation would contribute \$850 million each to the Thirty Meter Telescope and the Giant Magellan Telescope.

Funding approval would trigger the creation of a federal environmental impact statement and National Historic Preservation Act Section 106 consultation, a process of two years or more.

“It will lead to very significant outreach, another opportunity to listen and learn and a renewed

Science foundation discusses funding giant ...

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Santa Cruz astronomy professor and Thirty Meter Telescope board member, said last month.

Kealoha Pisciotta, leader of the Mauna Kea Hui group that opposes the telescope, said her group and others are prepared to challenge federal environmental documents.

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**INDEPENDENT EVALUATION OF THE
IMPLEMENTATION OF THE MAUNA KEA
COMPREHENSIVE MANAGEMENT PLAN**

**Prepared for
Department of Land and Natural Resources**

**By
Ku'iwalu**

December 2020

EXHIBIT "06"

EXECUTIVE SUMMARY

It has been over ten (10) years since the approval of the Mauna Kea Comprehensive Management Plan (CMP),¹ and the emotions related to Mauna Kea have not diminished but, to the contrary, have intensified and polarized the community. We recognize that the current issues related to Mauna Kea, in particular the construction of the Thirty Meter Telescope (TMT), is a contentious issue. To be very clear, this Report is not for or about TMT. The purpose of this Report is to provide the Department of Land and Natural Resources (DLNR) an independent evaluation of the University of Hawai'i (UH), specifically the Office of Mauna Kea Management's (OMKM), implementation of the CMP management actions contained in Section 7 of the CMP and the public input on how effective UH is managing Mauna Kea. This Report is intended to be a resource to DLNR and the Board of Land and Natural Resources (BLNR) as it reviews UH's current and potential future management of the state conservation lands at Mauna Kea.

Gathering and incorporating public input into the evaluation process was a critical component of this Report. Due to the COVID-19 restrictions, we were challenged with providing an appropriate venue for the public and stakeholders to, (1) get current and accurate information about the management actions (MA) UH is required to implement under the CMP, and (2) provide a transparent and fair opportunity for public input into the UH's implementation of the CMP. We assembled a comprehensive range of tools to provide information and to solicit public input, from email updates, virtual public meetings, dedicated website, and a Facebook page, to small virtual talk story sessions. Throughout the evaluation process, we engaged almost 500 individuals and organizations. We recognize that we may not have heard from everyone, but we believe the range and interests of the participants is reflective of the general public and stakeholders in Mauna Kea.

The Report consists of three assessments. First, OMKM's self-assessment of their implementation of the CMP. Second, the public's assessment, based upon the comments we received. And third, the independent evaluation utilizing the logic model approach that took into consideration UH's self-assessment, the public input, the timeliness of OMKM's implementation of MAs, and whether UH's implementation of the 103 MAs achieved the desired outcomes as set forth in the CMP.

With respect to UH's self-assessment, the *OMKM 2020 Annual Report to the Board of Land and Natural Resources, Status of the Implementation of the Mauna Kea Comprehensive Management Plan* (OMKM 2020 Annual Report to BLNR) essentially concludes that "most management actions have either been

¹ *Mauna Kea Comprehensive Management Plan for the UH Management Areas*, April 2009 (hereinafter CMP), Executive Summary, page v.

implemented or are in progress.” For the most part, the UH Management Entities² believe they have made considerable progress in effectively implementing the CMP MAs and are, in fact, better managing and protecting the cultural and natural resources. However, there is a difference of opinion between UH-Hilo Management Entities (UH-Hilo Entities)³ and the larger UH System with respect to the public’s perception of how effective OMKM is in managing the state conservation lands at Mauna Kea. Accordingly, “in response to past criticisms”⁴ the UH Board of Regents (BOR) adopted Resolution 19-03 to take timely action to comply with the management plans, including cultural education and community outreach, decommissioning, and reorganization and restructuring the UH governance structure in their management of Mauna Kea.

The public’s assessment of how effectively UH has implemented the CMP has primarily varied depending on whether they are in favor or opposition of telescope development on Mauna Kea. Those who support existing and future telescope development on Mauna Kea believe that OMKM has adequately implemented the CMP MAs to preserve and protect the cultural and natural resources on Mauna Kea. For those who do not support continued telescope development on Mauna Kea beyond 2033, the expiration of the existing state lease, they believe that UH continues to mismanage Mauna Kea as concluded in the 1998 State Auditor’s Report. In particular, those in opposition believe that UH continues to advocate telescope development over the protection and preservation of the resources.

Finally, the independent evaluation found that OMKM has made progress in implementing most of the CMP MAs, and in many regards OMKM is effectively managing the activities and uses on Mauna Kea to better protect the natural and cultural resources. We heard many comments that the cultural and natural resources on the state conservation lands on Mauna Kea are some of the best managed and protected lands in the entire State. The area is clear of trash, the invasive species are being removed not only by OMKM but volunteer groups, and the OMKM Rangers to ensure public safety on Mauna Kea.

² “UH Management Entities” include the UH Board of Regents (BOR), UH President, Institute for Astronomy (IfA), Executive Director of Maunakea Stewardship, UH Hilo Chancellor, Mauna Kea Management Board (MKMB), OMKM, Kahu Ku Mauna (KKM) and OMKM Rangers.

³ UH-Hilo Management Entities (UH-Hilo Entities) include UH-Hilo Chancellor, MKMB, OMKM, KKM, and OMKM Rangers.

⁴ UH BOR Resolution 19-03, Adopted November 6, 2019, Amended, July 1, 2020 (BOR Resolution 19-03).

However, the independent evaluation also found that OMKM has not effectively implemented the CMP in three major areas. First, the adoption of the administrative rules was untimely. In 2009, the same year that the CMP was approved, UH obtained legislative authorization to adopt administrative rules to manage the activities on Mauna Kea to ensure the protection of the resources. However, the rules did not become effective until 2020. UH's failure to timely adopt administrative rules has limited their ability to manage public access and regulate commercial activities, essentially hampering their ability to protect the resources and public health and safety on Mauna Kea.

Second, members of the Native Hawaiian community, both those who oppose and support UH's management of Mauna Kea, were not consulted on matters related to cultural and resources issues. The CMP specifically identifies the Native Hawaiian stakeholders to include families with cultural and lineal connections to Mauna Kea, Kūpuna, cultural practitioners, the Office of Hawaiian Affairs and other Native Hawaiian groups. Representatives from these stakeholder groups have consistently commented that they were not consulted by OMKM on cultural issues, including removal of family shrines, stacking of Pōhaku, and identification of cultural sites.

Third, OMKM did not effectively engage with the community, in particular, members of the Native Hawaiian community, on education and outreach efforts, including decision-making process related to the management of Mauna Kea. Many Native Hawaiians on Hawaii Island feel disengaged and disrespected by OMKM. In particular, there is an absence of genuine consultation with the Native Hawaiian community that has resulted in greater mistrust of UH. Even with the Native Hawaiian constituency who strongly support OMKM and telescope development, OMKM has not taken the opportunity to involve them in their community outreach efforts.

Unfortunately, these inadequacies by OMKM have overshadowed their progress in the otherwise effective implementation of many of the CMP MAs.

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ACRONYMS

ACT	Activities and Uses (Comprehensive Management Plan Management Action)
AR	Astronomical Resources (CMP MA)
BLNR	Board of Land and Natural Resources
BOR	Board of Regents
C	Construction Guidelines (CMP MA)
CDUA	Conservation District Use Application
CDUP	Conservation District Use Permit
CIA	Cultural Impact Assessment
CMP	Mauna Kea Comprehensive Management Plan
CR	Cultural Resources (CMP MA)
DHHL	Department of Hawaiian Home Lands, State of Hawai'i
DLNR	Department of Land and Natural Resources, State of Hawai'i
DOCARE	Division of Conservation and Resource Enforcement, DLNR
DOFAW	Division of Forestry and Wildlife, DLNR
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Education and Outreach (CMP MA)
FLU	Future Land Use (CMP MA)
HAR	Hawai'i Administrative Rules
HRS	Hawai'i Revised Statutes
IfA	Institute for Astronomy, UH
IM	Infrastructure and Maintenance (CMP MA)
KKM	Kahu Ku Mauna
MA	Management Action
MCP	Management Component Plan
MEU	Monitoring, Evaluation and Updates (CMP MA)
MKMB	Mauna Kea Management Board
MKSS	Mauna Kea Observatories Support Services
NAR	Natural Area Reserve, DLNR
NHO	Native Hawaiian Organization
NR	Natural Resources (CMP MA)
NRHP	National Register of Historic Places
NSF	National Science Foundation
OCCL	Office of Conservation and Coastal Lands, DLNR
OEQC	Office of Environmental Quality Control
OHA	Office of Hawaiian Affairs
OI	Operations and Implementation (CMP MA)
OMKM	Office of Mauna Kea Management, UH
OMMP	Operations, Monitoring, and Maintenance Plan
P	Permitting and Enforcement (CMP MA)
SHPD	State Historic Preservation Division, DLNR
SR	Site Recycling, Decommissioning, Demolition and Restoration (CMP MA)
TCP	Traditional Cultural Property
TMT	Thirty Meter Telescope
UH	University of Hawai'i
UH-Hilo	University of Hawai'i at Hilo

INTRODUCTION

In 1968, BLNR issued a 65-year General Lease No. S-4191 to UH for approximately 11,288 acres of state conservation lands. Of the 11,288 acres, approximately 525 acres is designated as the Astronomy Precinct and the remaining 10,763 acres is designated as Natural and Cultural Preservation Area.⁵ The state lease will expire in 2033. UH has indicated that it intends to seek a new lease with BLNR for the 11,288 acres currently under General Lease No. S-4191 and 19 acres known at Hale Pōhaku under General Lease No. S-5529.⁶

Over ten years ago in 2009, Ku‘iwalu Consulting and its Project Team,⁷ developed the CMP for the UH Management Areas.⁸ The CMP MA related to Monitoring, Evaluation, and Updates MEU-1,⁹ requires UH, through OMKM, to produce annual progress reports describing in detail the management goals, objectives, and actions for the year and what progress was made towards meeting them. In August 2020 we received from UH, the OMKM 2020 Annual Report to BLNR. In addition to annual progress reports, MEU-1 requires OMKM to prepare Five-Year Outcome Analysis Reports that describes the status of the various management programs, progress towards meeting CMP goals, and other relevant information. OMKM is in the process of completing its first five-year review.

Since OMKM will be submitting its first Five-Year Progress Report and UH has announced its intent to file an EIS for a new state lease, DLNR sought an independent evaluation of UH’s current management of Mauna Kea under the CMP. More specifically, DLNR sought an independent evaluation of not only UH’s implementation of the CMP but also UH’s adherence to the CMP and the effectiveness of its management strategies and governance structures in preserving and protecting the valuable cultural and natural resources on the state conservation lands.

⁵ The Astronomy Precinct and Natural and Cultural Preservation Area were designated by UH in its 2000 Mauna Kea Science Reserve Master Plan (Master Plan). The Master Plan called for 525 acres of the summit area leased land to be designated an Astronomy Precinct where the astronomy development was to be consolidated to maintain a close grouping of astronomy facilities, roads, and support infrastructure. CMP page 3-1. The Master Plan was approved by the UH BOR but not adopted or approved by BLNR. CMP page 3-8.

⁶ UH’s notice of intent to file an environmental impact statement (EIS) for the state leased lands was published in the Office of Environmental Quality Control (OEQC) February 23, 2018 Environmental Bulletin.

⁷ The Project Team that developed the CMP consisted of The Edith Kanaka’ole Foundation, Rechtman Consulting, McNeil Wilson, Sustainable Resources Group International, Inc., and Pacific Consulting Services.

⁸ The UH Management Areas is described in Section 3.1.1 of the CMP as beginning “at approximately 9,200 ft. (2,804 m) on Mauna Kea and extends to the summit, at 13,796 ft. (4,205 m), encompassing three distinct areas: the Mauna Kea Science Reserve (Science Reserve), the mid-level facilities at Hale Pōhaku, and the Summit Access Road (see Figure 3-1). These areas are collectively referred to as the ‘UH Management Areas.’ The UH Management Areas on Mauna Kea are classified in the resource subzone of the state conservation district lands (see Section 3.4.2).” See CMP at page 3-16.

⁹ MEU-1 refers to Monitoring, Evaluation and Updates (MEU). See CMP at page 7-64.

DLNR'S INDEPENDENT EVALUATION OF UH'S IMPLEMENTATION OF THE CMP

PURPOSE OF THE INDEPENDENT EVALUATION REPORT

The purpose of *this* Independent Evaluation Report (Report) is to (1) evaluate the effectiveness of UH, specifically OMKM's,¹⁰ implementation of the specific Management Component Plans (MCP) found in Section 7 of the CMP, and (2) to evaluate the efficiency of the governance structure in managing the cultural and natural resources within state conservation lands under lease to UH. Ultimately, this Report will provide DLNR and BLNR the relevant information, including extensive public input, as they consider the management of the state conservation lands during the current lease term and beyond, in any future lease.

INDEPENDENT EVALUATION PROCESS

Fact Gathering

The independent evaluation process focused on OMKM's implementation of the CMP MAs within the MCPs and UH's governance structure in managing Mauna Kea and the Mauna Kea Science Reserve. The Project Team¹¹ gathered relevant information from files of DLNR, UH, various litigation involving Mauna Kea, 1998 state auditor report and follow-up audit reports, relevant print and social media, and other related materials. We also provided UH the opportunity to submit all relevant documents on their implementation of the CMP. In response to the request, UH emailed a comprehensive list of documents and links supporting their implementation of the CMP.¹² All information that was provided to Ku'iwalu was uploaded to the CMP evaluation website, www.evaluate-the-cmp.com.

We also reviewed materials related to the implementation of the CMP and Mauna Kea in general, from other stakeholders, including but not limited to the Sierra Club of Hawai'i, Protect Mauna Kea, KAHEA, IfA, 'Imiloa Astronomy Center, Hawai'i Unity & Liberation Institute, Hawai'i Forest & Trails, EnVision Maunakea, Office of Hawaiian Affairs (OHA), Imua TMT, and the TMT International Observatory.

¹⁰ Section 7.4.1 of the CMP states that the OMKM will be responsible for implementing the CMP and ensuring adherence to its provisions. However, for purposes of this Report, since the state lease is issued to UH, the UH will be generally referenced as responsible for the implementation of the CMP unless the action is specifically undertaken by OMKM, then OMKM will be referenced.

¹¹ The Project Team for this Report includes SMS Research, People Strategies Hawai'i LLC, and Ku'iwalu.

¹² Ku'iwalu sent a letter dated May 19, 2020 to Dr. Gregory Chun, UH's Executive Director of Maunakea Stewardship, providing them an "opportunity to furnish Ku'iwalu with all relevant information, which could include reports, studies, annual reports, meeting notes, community comments, administrative rule-making, response to auditor's reports, etc. that document UH's performance, operations, and the management of Mauna Kea consistent with the CMP." Dr. Chun was identified as UH's Point of Contact for the independent evaluation.

Public Engagement Process

As part of the evaluation process, Ku'iwalu proposed to develop and implement a culturally sensitive and robust public engagement process, similar to the community outreach process utilized in the preparation of the CMP that was approved in 2009. At the onset, Ku'iwalu was challenged by the constraints and uncertainties of the COVID-19 restrictions on social distancing and travel to Hawai'i Island. Thus, Ku'iwalu utilized a variety of non-traditional approaches to engage the general public and stakeholders to solicit their input on UH's implementation of the CMP and stewardship of Mauna Kea. The following methods were used to solicit public input: email updates, stakeholder meetings, virtual public meetings, website, Facebook, and direct contact with Ku'iwalu.

Development and Implementation of the Evaluation Model

SMS Research, based upon their experience and expertise, developed and conducted the independent evaluation. To start, they did a thorough review of the CMP and examined all the documents provided during the fact gathering phase. They relied upon the documents provided by UH, including OMKM's 2020 Annual Report to BLNR,¹³ MKMB meeting minutes, reports, studies, and other relevant documents. They also reviewed and considered all documents related to the CMP provided by other organizations, comments from stakeholder and virtual public meetings, website comments, and comments that were submitted directly to Ku'iwalu through phone calls and emails.

SMS Research then developed an evaluation model based upon the Logic Model Approach. This approach focuses on which MAs were completed by OMKM and the impact of those activities or actions on achieving the desired outcomes as set forth in each of the MCPs. The time period examined was UH's implementation of the CMP from 2010 to present.

Final Report

The Report includes three sets of evaluations. First, the Report includes UH's self-assessment based upon the OMKM 2020 Annual Report to BLNR. Second, the Report includes the public's assessment of how effectively UH implemented the CMP MAs, based upon comments from stakeholder meetings, the three virtual public meetings, comments submitted on the website or by email directly to Ku'iwalu. Third, the Report includes the independent evaluation based upon the logic model that took into consideration UH's self-assessment, public input, whether UH's action achieved the desired outcomes, and the timeliness of completion by UH to meet the desired outcomes.

The Report will be submitted to DLNR by December 31, 2020 and uploaded to the CMP website for public consumption.

¹³ Appendix A7 is a copy of the OMKM 2020 Annual Report to BLNR.

MANAGEMENT OF MAUNA KEA

Before delving into the public comment and evaluation model, we believe it is important to have an understanding of the historical background on management of Mauna Kea to provide context for the CMP MAs, MCP desired outcomes, and goals which set the framework for the Logic Model Approach.¹⁴ A brief history timeline of the management of Mauna Kea is shown in Figure 1.

MANAGEMENT OF MAUNA KEA PRIOR TO 1968

In the early 1960's, the federal government, through the National Aeronautics and Space Administration, was increasing funds to test, develop, design, and construct telescope facilities around the country. Due to accessibility, initial testing was conducted at Haleakalā, on Maui Island. In 1963, Governor John Burns provided funds to build an access trail to the summit of Mauna Kea for observatory testing. In 1964, after testing, UH concluded that Mauna Kea was an exceptional site for an astronomical observatory. In that same year, the State Land Use Commission placed the lands on Mauna Kea within the state's conservation district under the management jurisdiction of BLNR.¹⁵

MANAGEMENT OF MAUNA KEA UNDER GENERAL LEASE NO. S-4191

In 1967, UH established the IfA to plan for telescope development on Mauna Kea. The following year, UH applied to BLNR for a 65-year lease of the state conservation lands at Mauna Kea to establish the Mauna Kea Science Reserve. Management of the state leased lands was primarily by IfA to further their mission to conduct and promote world-class astronomical research. From 1968 to 2002, thirteen telescopes were built on the summit of Mauna Kea.

¹⁴ We also recognize that this Report will be broadly reviewed, thus this background information on management of Mauna Kea will provide the relevant context when reviewing the Report.

¹⁵ See CMP Section 3.2, at pages 3-5 for complete History of Planning and Management of Mauna Kea. Additionally, Hawaii Revised Statutes (HRS), Chapter 205-2 describes the state four land use districts; urban, rural, agricultural, and conservation. Conservation districts include areas necessary for protection and preservation of resources.

During this same period of time, local groups, including hunters, cultural practitioners, conservationists, and others raised concerns about the increased development of telescopes on the summit of Mauna Kea with no management or care for the cultural and natural resources.¹⁶ From 1974 to 2000, DLNR and UH attempted to respond to the community concerns to improve management control over not only telescope development, but the proliferation of unregulated commercial and recreational use of Mauna Kea. DLNR adopted the 1977 DLNR Mauna Kea Plan, 1980 Hale Pōhaku Complex Development Plan, 1985 Mauna Kea Management Plan, and 1995 Revised Management Plan for the UH Management Areas on Mauna Kea. Similarly, in 1982 the UH BOR approved the Research and Development Plan for Mauna Kea Science Reserve, in 1983 the Mauna Kea Science Reserve Complex Development Plan, and in 2000 the Mauna Kea Science Reserve Master Plan.

¹⁶ State Auditor's Report *"Audit of the Management of Mauna Kea and the Mauna Kea Science Reserve,"* Report No. 98-6, February 1998, page 45.

Figure 1: Brief History Timeline of Management of Mauna Kea



THE STATE AUDIT OF THE MANAGEMENT OF MAUNA KEA

In response to the “growing concerns” over the protection of Mauna Kea’s cultural and natural resources, the 1997 Hawai’i State Legislature, through Senate Concurrent Resolution No. 109, requested the State Auditor to conduct an audit of the management of Mauna Kea and the Mauna Kea Science Reserve. The audit was completed in February 1998, and specifically noted that the “conditions of the lease, the plan(s) developed, and the Conservation District Use Application (CDUA) process were all designed to allow the university’s use of the lands without causing excessive damage to the fragile environment. However, the university’s focus on pursuing its own interests has led to conditions and practices that have countered or weakened these processes.”¹⁷

The audit indicated that UH primarily focused on development of the summit of Mauna Kea for some of the most powerful astronomical instruments in the world. While these telescopes enhanced the university’s prestige and status around the astronomical community, “both the university and the department¹⁸ failed to develop and implement adequate controls to balance the environmental concerns with astronomy development.”¹⁹

The audit concluded that,

*Over thirty years have passed since construction of the first telescope on Mauna Kea. During this period, little was done to protect its natural resources. The university, as the leaseholder, should have provided sufficient protection to the natural resources and controlled public access and use. These requirements have not been adequately met. The Department of Land and Natural Resources, in its role as landlord, should have overseen the university’s activities and enforced permit conditions and regulations in protecting the State’s interests. Neither state agency has been proactive in maintaining the conservation district.*²⁰

The audit made several recommendations for UH and DLNR to improve the management of Mauna Kea and the Mauna Kea Science Reserve. Since 1998, the state auditor has conducted four follow-up audits to assess UH and DLNR’s implementation of their specific recommendations to improve the management of Mauna Kea and the Mauna Kea Science Reserve. The follow-up audits were done

¹⁷ Id, page 15.

¹⁸ While the 1998 Audit addressed both UH and DLNR’s management of Mauna Kea and the Mauna Kea Science Reserve, for purposes of this Report, we will be focusing only on UH’s management of Mauna Kea under the CMP.

¹⁹ Id, page 15.

²⁰ Id, pages 34-35.

in 2005,²¹ 2014,²² 2017,²³ and 2019.²⁴ In general, the follow-up audits found that UH had made improvements in managing Mauna Kea, including the adoption of the CMP. However, consistent in all the audits, was UH's failure to adopt administrative rules governing public and commercial activities to ensure effective management and enforcement for the protection and preservation of the natural and cultural resources.²⁵

DEVELOPMENT AND MANAGEMENT OF MAUNA KEA UNDER THE CMP

The CMP was developed to address many of the past concerns by providing a resource management framework to preserve and protect cultural and natural resources by managing existing and future activities and uses on Mauna Kea. Some of the past concerns were noted in the 1998 Auditor's Report, including over emphasis on telescope development and lack of acknowledgement of the cultural significance of Mauna Kea. The CMP was also developed to comply with the legislative intent of conservation lands,²⁶ and judicial decisions, including Judge Hara's decision²⁷ and the *Ka Pa'akai*²⁸ analytical framework related to the protection of Native Hawaiian rights.

²¹ *Follow-Up Audit of the Management of Mauna Kea and the Mauna Kea Science Reserve*, Report No. 05-13, December 2005.

²² *Follow-Up Audit of the Management of Mauna Kea and the Mauna Kea Science Reserve*, Report No. 14-07, August 2014.

²³ *Follow-Up on Recommendations from Report No. 14-07, Follow-Up Audit of the Management of Mauna Kea and the Mauna Kea Science Reserve*, Report No. 17-06, July 2017.

²⁴ *Report on the Implementation of State Auditor's Recommendations 2014-2017*, Report No. 19-15, November 2019.

²⁵ UH Administrative Rules, Chapter 20-26 entitled Public and Commercial Activities on Mauna Kea Lands was adopted by the BOR on November 6, 2019, signed by the Governor, and became effective on January 23, 2020.

²⁶ HRS, §183C-1, states that "The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare."

²⁷ *Mauna Kea Anaina Hou, et al. v. Board of Land and Natural Resources*, Civ. No. 04-1-397, Decision and Order dated January 19, 2007 (Judge Hara's decision). Pursuant to Judge Hara's decision, BLNR shall approve a comprehensive management plan that considers multiple uses as a precondition for any future development on Mauna Kea.

²⁸ *Ka Pa'akai O Ka 'Aina v. Land Use Commission*, 94 Haw. 31, 7 P.3d 1068 (2000) (*Ka Pa'akai*). The Hawai'i Supreme Court in its decision in *Ka Pa'akai* provides government agencies an analytical framework to ensure the protection and preservation of valued cultural, historical, and natural resources. Section 2.3.3 of the CMP specifically describes how the CMP applied the analytical framework to ensure that the constitutionally guaranteed traditional and customary Native Hawaiian rights and cultural, historical, and natural resources are preserved and protected.

In addition to the legal requirements, the CMP was developed based upon an extensive community engagement process. The basis for the consultation process was an acknowledgment by UH that past planning and management efforts had not fully engaged the community or genuinely considered their concerns. The CMP aptly summarizes this sentiment:

During the recent Outrigger Telescope permitting process, many in the Hawaiian community experienced frustration as they attempted to express their perspectives and suffered psychological and spiritual hurt as their values and traditions were not given the attention and respect they deserved. As a result, they lost trust in the University as a responsible steward of the UH Management Areas and criticized the University for circumventing its own management policies. Subsequently, many individuals dissociated themselves from the process or resorted to other venues to express their views and advocate their position.²⁹

The CMP was prepared in a methodical manner, primarily based upon the *Ka Pa‘akai* analytical framework, to form the foundation for the 103 MAs. These MAs are designed to preserve and protect the cultural and natural resources by managing the existing and futures uses and activities on Mauna Kea.

- Section 1 – Cultural Orientation. Introduces the reader or user of the CMP to the cultural significance of Mauna Kea from a historical and contemporary use perspective;³⁰
- Section 2 – Introduction. Describes the CMP as an integrated planning tool for resource management, drawing upon the Hawaiian approach to managing cultural and natural resources as well as contemporary science-based management approaches. This section also describes the CMP goals, objectives, and desired outcomes upon which we evaluate whether UH’s implementation of the CMP is in furtherance of these goals;
- Section 3 – Management Environment. Provides an overview of the physical UH Management Areas, history of the previous planning and management plans, and describes the management responsibilities over Mauna Kea;
- Section 4 – Community Engagement Process. This process recognized that many in the public, especially the Native Hawaiian community on Hawai‘i Island felt anger, hurt and mistrust towards UH for not involving them in management decisions related to Mauna Kea. This section describes the culturally sensitive community engagement process based upon cultural values and the non-traditional methods of engagement to ensure meaningful participation by the public;

²⁹ CMP, page 4-1.

³⁰ We acknowledge that not all Native Hawaiians may share the view that Mauna Kea is culturally significant. During the public engagement process for this Report, there is a strong Native Hawaiian constituency that assert Mauna Kea is not culturally sacred and in fact, the CMP’s assertion that Mauna Kea is culturally significant is offensive to this Native Hawaiian constituency. However, during the community engagement process for the development of the CMP, there was overwhelming sentiment by many of the Native Hawaiian stakeholders that participated in the process, that Mauna Kea is culturally significant.

- Section 5 – Cultural and Natural Resources. The CMP relied upon previous documentation to identify the valued cultural resources,³¹ historic and archaeological resources, and natural resources. Section 5 is the 1st step in the *Ka Pa‘akai* analysis to identify the valued cultural, natural, and historic resources within the state conservation lands;
- Section 6 – Human Environment. This section described all the existing and future activities and uses on Mauna Kea and the threats to the cultural, natural, and historic resources. Section 6 is the 2nd step in the *Ka Pa‘akai* analysis to determine the impacts that the proposed management framework would have on the valued resources;
- Section 7 – Management Component Plans. Section 7 is the 3rd step in the *Ka Pa‘akai* analysis that identifies the feasible actions, MAs, or mitigation measures to reasonably protect the valued cultural, natural, and historic resources. This is the heart of the CMP that sets forth desired outcomes for each of the MCPs, specific MAs that UH, and specifically OMKM, is required to implement to ensure the protection and preservation of the cultural and natural resources.

The CMP was approved by BLNR on April 7, 2009 and the UH BOR on April 16, 2009. As a condition of BLNR approval, four sub-plans were required to be developed within one year of approval of the CMP. The four sub-plans include: (1) *Natural Resource Management Plan for the UH Management Areas on Mauna Kea* (September 2009), (2) *Cultural Resources Management Plan for the UH Management Areas on Mauna Kea* (October 2009), (3) *Mauna Kea Public Access Plan* (January 2010), and (4) *Decommissioning Plan for the Mauna Kea Observatories* (January 2010).

³¹ In particular, the CMP relied upon the extensive ethnographic interviews and cultural reports prepared by Kepa and Onaona Maly. Maly, K and O. Maly (2005). *Mauna Kea, ka piko Kaulana o ka aina: Mauna Kea, the famous summit of the land*. Hilo, HI, Kumu Pono Associates LLC: 650 p.; Maly, K. and O. Maly (2006). *Appendix A: Mauna Kea-Ka Piko Kaulana o Ka ‘Aina*.

PUBLIC ENGAGEMENT PROCESS AND SUMMARY

The public engagement process and summary is a critical component of not only the independent evaluation but the path forward for stewardship of Mauna Kea. When contracting with Ku'iwalu, DLNR emphasized the importance of an extensive public engagement process to fully inform them and BLNR of the public's sentiments about current and future stewardship of Mauna Kea. Public sentiments include stakeholders to Mauna Kea and the general public. Thus, in addition to the technical evaluation of UH's implementation of the CMP, this Report includes the public's assessment of UH's management or stewardship and governance of Mauna Kea.

Almost everyone has an opinion or comment on Mauna Kea. However, not all comments are necessarily related to the implementation of the CMP.³² For the integrity of the independent evaluation, we wanted to ensure that the public assessment and UH's assessment were comparing "apples with apples," in other words, comparing the same CMP MCPs. Thus, while we read all of the comments, for the purposes of the independent evaluation, we considered those comments that were specifically related to UH's implementation of CMP MAs. However, this does not diminish or disregard the time people took to submit their comments or the strong sentiments that were expressed in their comments. For those who submitted comments within the comment deadline, we have listed their names on Appendix A1.³³ We have greatly appreciated all of the comments that were submitted.

STAKEHOLDERS AND GENERAL PUBLIC

Similar to the CMP community engagement process, there are families, organizations, and agencies who have an active (and in some cases, cultural or lineal) relationship to Mauna Kea. There are certain stakeholders whose views and perspectives were given careful consideration because of their cultural, legal, or regulatory affiliation with Mauna Kea. They include the following:

- UH Management Entities
- Families who have cultural or lineal connections to Mauna Kea
- Hawaiian Cultural and Religious Practitioners
- Astronomical Community
- Aha Moku Advisory Committee

³² In fact, many comments we received were either for or against the construction of TMT on Mauna Kea. While this Report is not for or about TMT, Hawaiian sovereignty, ceded lands, compensation, or renewal of the state lease, many of the comments we received were about these topics. This Report briefly describes some of these comments in the Section titled "Issues and Concerns beyond the Scope of this Report."

³³ Appendix A1 is a comprehensive list of all the individuals and groups we engaged with during the CMP evaluation process. This list includes those who may have received email updates, participated in stakeholder meetings, attended virtual public meetings, left a comment on the website, or emailed a comment directly to Ku'iwalu.

- OHA
- Environmental Groups
- Hawaiian Educational and Business Organizations
- Commercial and Recreational users
- Elected Officials
- Government Agencies

In addition to stakeholders, the viewpoints of the general public are important and were given due consideration in the evaluation process.

CONSULTATION PROCESS AND METHODS

As previously noted, Ku'iwalu utilized a variety of non-traditional approaches to engage the general public and stakeholders to solicit their input on UH's implementation of the CMP and stewardship of Mauna Kea. We engaged with nearly 500 individuals or organizations during the evaluation process.³⁴ The following methods were used to solicit public input:

Email Updates

- 1st email – May 15, 2020. Ku'iwalu initially emailed letters to those individuals or groups who were consulted during the preparation of the CMP in 2009. In addition, emails were sent to a list of known stakeholders involved in Mauna Kea at the time. The first email included a letter introducing Ku'iwalu, a copy of DLNR's May 15, 2020 Press Release announcing their review of the Mauna Kea CMP, the CMP Report and CMP Appendices from April 2009. Appendix A2 is a copy of the email, and attachments of Ku'iwalu's Introduction Letter, and DLNR's Press Release;³⁵
- 2nd email – July 23, 2020. The 2nd email update included a letter that announced the launch of the Project Website www.evaluateCMP.com and Facebook page (Share Your Mana'o on the Mauna Kea CMP). The letter indicated that the website provides easy access to the CMP, reference documents provided by UH, as well as other resources. It also explained ways to provide comments and give input during the evaluation process. As the process proceeded, the email updates were expanded to include those who participated in stakeholder meetings, those who registered for the virtual public meetings, or those who may have submitted comments. Appendix A2.1 is a copy of the email and the July 23, 2020 letter;

³⁴ See Appendix A1.

³⁵ The April 2009 CMP [Report](#) and CMP [Appendices](#) can be found on DLNR's website.

- 3rd email – August 26, 2020. The 3rd email update announced the three virtual public meetings as well as information of the many different ways to provide comments before the October 16, 2020 comment deadline.³⁶ Appendix A2.2 is a copy of the email;
- 4th email – September 3, 2020. The 4th email update announced the three virtual public meetings and how to register for each meeting. It also provided a link to the website to participate in a number of informal community polls. Appendix A2.3 is a copy of the email sent to the expanded list of stakeholders;
- 5th email – September 24, 2020. The 5th email was a reminder to register in advance for the virtual public meetings. Appendix A4 is a copy of the email reminder.
- 6th email – December 2020. The 6th email will be to announce that the Report has been submitted to DLNR and posted on the website for thirty (30) days, thereafter the website will be removed since the Report has been submitted. DLNR will then provide a link to the Report on its Mauna Kea website. The email will be sent to the comprehensive list referenced in Appendix A1.

Individual and Stakeholder Meetings

Ku‘iwalu convened over forty (40) virtual stakeholder meetings and telephone conferences during the course of the evaluation process. The small talk story meetings permitted discussions that could be candid, confidential, and respectful. The meetings ranged from 1-2 hours and focused on getting specific comments on UH’s implementation of the CMP MAs and their stewardship of Mauna Kea. These stakeholder meetings ranged from the various UH Management Entities who have a role in the management of Mauna Kea, relevant DLNR Divisions, cultural and religious practitioners, individuals and families who have cultural or lineal connections to Mauna Kea, NHOs, Observatories, Imua TMT, KAHEA, Kia‘i Alaka‘i and elected officials. Appendix A3 is a list of stakeholders we met with. This list of stakeholders was added to the list for email updates.

Virtual Public Meetings

In an effort to reach out to the broader public, we held three virtual public meetings. The meetings were scheduled on different days of the week and at different times to make them more accessible to the public. Those wanting to attend the virtual meetings were required to register in advance in order to receive a link to attend the meetings. Appendix A4 is a list of those who registered for each of the three virtual public meetings. In general, more people registered than actually joined the meeting.

³⁶ The deadline for comments was extended to November 5, 2020 as posted on the website.

During each of the two-hour virtual public meetings, we provided a brief presentation on the CMP and evaluation process. However, most of the meeting was dedicated to providing the public with an opportunity to give specific comments on UH's implementation of the CMP MAs. Appendix A4 also includes a copy of the meeting agenda, and the power point presentation that was shared at the meeting.

Website

We created a dedicated website as another means to inform, educate, and solicit public input on the independent evaluation, www.evalutetheCMP.com. Not only did the website provide information about the CMP, the evaluation process, and links to an exhaustive listing of resource materials related to Mauna Kea, but one of the primary purposes for the website was to provide the public another platform to submit comments. We received approximately 70 comments through the website. Individuals could leave comments, but their comments could not be viewed by others. Appendix A5 is a copy of some of the information posted on the website. The comments are not included in the Appendix because we did not get permission and most of the comments were not specifically related to the implementation of the CMP.

Facebook

At the time we launched the website, we launched a Facebook page as a social media platform to supplement the website. The Facebook page was an additional way of distributing information and announcements. No public comments were permitted to be posted to the Facebook page, but viewers were directed to the website to leave their comments.

Comments Submitted to Ku'iwalu Related to UH's implementation of the CMP

Besides the methods noted above, some comments were sent directly to Ku'iwalu. For example, we received written comments from the OHA, Imua TMT, Kimo Stone, Mililani Trask on behalf of Wahine Apapalani Hawaiian Cultural Practitioners, Bianca Isaki on behalf of KAHEA, Senator Kurt Fevella, Thayne Currie, Flores-Case 'Ohana, and numerous email form submissions from Mauna 'Aelike/Consensus Building 'Ohana.³⁷

Appendix A6 is a copy of these comments.

³⁷ Appendix A6 includes a copy of Kealoha Pisciotto's comments on behalf of Mauna Kea Anaina Hou, Mauna Kea Hui, Mauna Kea Moku Nui 'Aelike/Consensus Building 'Ohana and a copy of one of the form submissions received via email from Mauna 'Aelike/Consensus Building 'Ohana whose contents are identical to Kealoha Pisciotto's comments. We did not include in Appendix A1 all of the names who submitted Mauna 'Aelike/Consensus Building 'Ohana forms after November 5, 2020, the extended deadline to submit comments as posted on the website.

SUMMARY OF THE COMMENTS RELEVANT TO UH'S IMPLEMENTATION OF THE CMP³⁸

While the next section of the Report will include the public's assessment of UH's implementation of the CMP, this section of the Report will summarize some of the major themes specifically relevant to UH's implementation of the CMP. The Section titled "issues and Comments beyond the Scope of the CMP" will summarize or list some of the comments that are beyond the scope of the implementation of the CMP but should be considered in broader decision making related to Mauna Kea.

The cultural value of Mauna Kea continues to be "unrecognized" by UH as are the rights of Native Hawaiian cultural and religious practitioners

From the building of the initial telescopes in 1968 to the 1998 Auditor's Report, and to the implementation of the CMP, a consistent concern has been that UH has primarily focused on telescope development on Mauna Kea and the cultural value of Mauna Kea has been disregarded or largely unrecognized.³⁹ While we received comments from some Native Hawaiians who assert that Mauna Kea is not sacred, we received many more comments from members of the Native Hawaiian community and the general public that Mauna Kea is culturally significant. We also received specific comments from individuals and families who continue to exercise traditional and customary practices on Mauna Kea that have not been consulted with and felt that their rights have been disregarded or disrespected by OMKM.

For example, there was strong sentiment by Native Hawaiians active in the protest on Mauna Kea that the determination by OMKM as to what cultural resources and historic sites are significant, including the removal of some of those resources is not only inconsistent with the CMP but it also violates their constitutional protections under Article XII, Section 7 of the Hawaii State Constitution. They specifically assert that there has been little or no consultation with known families who have cultural or lineal connections to Mauna Kea, Kūpuna, and cultural and religious practitioners before the removal of these resources. They assert that these actions by OMKM are inconsistent with CMP MA CR-1, CR-4, CR-5, CR-6, CR-7, CR-8, CR-9, and CR-10.

Another example noted in the comments we received was that UH's initial draft of the administrative rules proposed to regulate Native Hawaiian traditional and customary rights while providing exemptions for commercial users. The commenters note that only after vocal opposition to the draft rules, were the final administrative rules revised to provide that "Native Hawaiian traditional and

³⁸ The comments provided during this process shall only be used for this independent evaluation. No permission has either been sought or granted to use the information, comments, or disclosures beyond this Report. No specific comments are attributed to any individual as we did not request nor receive permission to do so.

³⁹ 1998 Audit Report, Summary page.

customary rights as recognized and protected under article XII, section 7, of the Hawai'i State Constitution shall not be abridged.”⁴⁰

There is a lack of genuine community engagement and cultural education by UH as required by the CMP.

A consistent comment from outside of UH Management Entities is that there has not been genuine community outreach and cultural education as required by CMP MA EO-1, EO-2, EO-3, and EO-7. Even some UH Management Entities note that this is one area in the CMP that UH could improve on. Comments by UH-Hilo Entities believe that community engagement was primarily through MKMB meetings and UH BOR meetings as these meetings are open to the public. UH-Hilo Entities felt that beyond the MKMB publicly noticed meetings, it was the role of the UH System in Mānoa to manage the communications with the community because UH-Hilo Entities do not have the resources, given that most of them are voluntary boards.

In addition to OMKM's deficiencies noted above, the CMP MA related to Education and Outreach, there were comments that OMKM failed to inform the public of the results of the management activities in a timely manner and failed to timely complete the five-year review as required under CMP MA MEU-1 and MEU-2, respectively.

With respect to cultural consultation, UH-Hilo Entities believe that it is the kuleana of KKM to engage with the Native Hawaiian community because of their cultural experience and expertise. Although KKM meetings are not subject to the sunshine law and therefore not required to be open to the public, KKM is comfortable in making their collective recommendations to OMKM based upon their cultural experience and expertise. Like MKMB, members of KKM commented that they are a voluntary board who are doing the best they can with their limited resources. KKM has provided OMKM recommendations on removal of offerings, scattering of human remains, construction of new cultural features including stacking of rocks, and they review any proposed changes by observatories to their facilities on Mauna Kea. Although most of the UH Management Entities believe they are in compliance with the CMP, the UH BOR has directed the 'Imiloa Astronomy Center to take a more active role in community engagement and cultural education.⁴¹

⁴⁰ Section 20-26-3, Hawaii Administrative Rules (HAR).

⁴¹ University of Hawai'i Board of Regents Resolution 19-03, Adopted November 6, 2019, Amended, July 1, 2020 (BOR Resolution 19-03). BOR Resolution 19-03 specifically determined that there remain unmet responsibilities and ongoing compliance issues that have delayed completion of certain recommendations and requirements under the Management Plans. Action Item No. 5 specifically provides, "In collaboration with OMKM and MKSS, the 'Imiloa Astronomy Center shall develop a suite of educational programs regarding Maunakea including but not limited to Native Hawaiian culture, history, environmental, and biological considerations designed for tour guides and drivers, employees, contractors, recreational users, scientists and observatory workers, and visitors, as required by the Management Plan, by August 31, 2020. OMKM shall report to the Board of Regents on its plans and progress to implement said educational programs at its February 2020 meeting. Administration shall make a budget request during the 2020 legislative session to fund this action item."

UH has generally done a good job in managing the cultural and natural resources, but there is no independent review or accountability on the integrity of the studies or reports, and the completion of many of the CMP actions are overdue.

Most of the comments we heard from government agencies, observatories, commercial and recreational users, and some Native Hawaiians, expressed that the cultural and natural resources are being better managed and protected by OMKM than prior to the 1998 Audit. Many have indicated that the wekiu bug population has increased, the historic sites are being monitored regularly under the archaeological monitoring plan, the OMKM Rangers are doing a great job educating visitors about staying on the trail and picking up their trash, the Mauna Kea silversword population has increased, and the access road is better maintained, especially during the snowy winter season.

On the other hand, we also heard comments that archaeological monitoring plans were long overdue, that the reports indicating the wekiu bug population increase were to support delisting it from the endangered species list, that the archaeological work for the northern plateau was altered to show no cultural sites where TMT is going to be built, and that cultural descendants from the area were never consulted on those reports. These comments are related to MAs NR-1⁴² to NR-18. This independent evaluation did not review the reports or studies referenced by OMKM for accuracy or scientific integrity.

There is an inherent conflict of interest by having UH as the lessee of the state conservation lands and the applicant for new telescope development.

We heard strong comments from members of the Native Hawaiian community that UH's role to advocate for new telescope development as the applicant for the CDUA conflicts with UH's ability to properly manage and protect the valued cultural and natural resources within the state conservation lands. In relevant part, Section 7.3.4 of the CMP related to Future Land Uses specifically emphasized that "the CMP manages resources, it does not advocate or promote new telescope development."

Contrary to the CMP, the dual roles of UH as land manager and as developer creates at least an appearance of a conflict of interest that have caused some Native Hawaiians to question the credibility and integrity of the scientific, historic, cultural, and environmental reports that OMKM produced pursuant to the CMP MAs. Some comments specifically noted that CMP MA FLU-2 required UH to develop land use zones in the Astronomy Precinct and the goal of this process was to refine telescope siting areas defined in the 2000 Master Plan based upon updated cultural and natural resource information. For example, TMT is being proposed to be built in the northern plateau in an area where the 2000 Master Plan

⁴² NR refers to Natural Resources (NR). See CMP section 7.1.2.

says no telescope development. This conflict of interest adds to the diminished trust between UH and many members of the Native Hawaiian community.

We also heard comments from UH-Hilo Entities that it was “awkward” having UH as the applicant for the CDUA for TMT. In fact, they felt their relationship with members of the Native Hawaiian community changed when they became the applicant for the TMT CDUA; they felt they were no longer viewed as being neutral land managers but telescope developers. Beyond the issue of the appearance of a conflict of interest, the UH Management Entities have commented that ideally, they would prefer having a smaller state lease of only the 525 acres of the Astronomy Precinct and contribute funds to DLNR or another appropriate entity to manage the 10,000 acres consisting of the Natural and Cultural Preservation Area. Similar comments were made by some of the observatories. There were a few comments that wanted to explore the possibility of having a Native Hawaiian entity or third party manage all the state conservation lands or at least the 10,000 acres of Natural and Cultural Preservation Area.

The current UH governance structure is not effective in managing Mauna Kea.

It is worth noting that most of the comments related to the effectiveness of the governance structure was made by UH Management Entities. The UH-Hilo Entities strongly believe that decision making related to Mauna Kea needs to be made by UH-Hilo Entities on Hawai'i Island. In addition, these same entities believe that OMKM is doing a fairly good job in implementing the CMP.

On the other hand, several of the UH Management Entities outside of UH-Hilo believe that the public perception is that OMKM is not doing a good job stewarding Mauna Kea. They believe that OMKM has not engaged the community, in particular members of the Native Hawaiian community. They also believe that OMKM has not effectively developed cultural education materials, information, or opportunities to collaborate with members of the Native Hawaiian community and organizations to promote cultural education and understanding of Mauna Kea. In response to the perceived deficiency, UH BOR Resolution 19-03 has proposed and begun implementing structural changes to the management of Mauna Kea.⁴³

With respect to the broader public comments on the effectiveness of the UH governance structure, most see UH as one entity. They either believe that the UH existing structure is doing a good job, or they believe that UH is mismanaging Mauna Kea and there is very little in between. There were a few comments that wanted to explore the possibility of having a Native Hawaiian entity or third party manage all the state conservation lands or at least the 10,000 acres of Natural and Cultural Preservation Area.

⁴³ BOR Resolution 19-03. Action Item No. 9 provides in relevant part, “As part of the reorganization and restructuring plan, an in-depth analysis will be done to determine whether the management of the Maunakea Science Reserve would be better served if transferred to a governmental authority or other third party entity, or through alternate management mechanisms.”

ISSUES AND COMMENTS BEYOND THE SCOPE OF THE CMP

There were numerous comments that were beyond the scope of the implementation of the CMP. We did not want to discount these comments as some of these issues had been identified in the CMP (see Section 2.1.4) and continue to linger as unresolved issues. Similar to the CMP, we wanted to respect and honor those comments by noting them below for appropriate consideration beyond this Report.

UH has not kept its “promises” to remove telescopes from Mauna Kea before proposing new telescope development.

This comment primarily related to the issue of timely decommissioning telescopes from the summit of Mauna Kea before any new telescope is constructed. As noted in the CMP, “the basis for this [decommissioning] was not only to preserve a ‘zero net gain’ of telescopes, but also because of the recognition that decommissioning is perhaps the most tangible form of actually listening to the community’s concerns that before new telescopes can be considered some obsolete facilities must come down.”⁴⁴ In listening to members of the Native Hawaiian community, for many who say UH hasn’t kept their promises, they refer to UH’s representations during the early years of the state lease that there would only be 13 telescopes. But now, UH is proposing the world’s largest telescope (TMT) before removing any telescope; 13 to 0.⁴⁵ We also heard from non-Native Hawaiians, that in order to show some good will, UH needs to facilitate the decommissioning process. In response, the UH BOR has established an accelerated schedule for the decommissioning of up to possibly five (5) telescopes.⁴⁶ However, there are many people in the community, including Native Hawaiians, who would like to see the retention of existing telescopes that are not obsolete as well as the construction of TMT because of the educational and economic benefits beyond the lease termination in 2033.

UH should not be managing the cultural and natural resources and should only manage the astronomy precinct.

Similar to the comments we heard related to governance, there were many comments, both from within UH and external to UH, that expressed that UH should not be managing the 10,763 acres of Natural and Cultural Preservation Area. Some of the comments expressed by UH Management Entities are that managing the state conservation lands to preserve and protect resources is outside of UH’s mission of education. Other comments, especially by members of the Native Hawaiian community is that UH should not be managing any of the state

⁴⁴ CMP, page 4-6.

⁴⁵ Some within the Native Hawaiian community say 13 telescopes for astronomy and 0 telescopes have come down for the Native Hawaiian community.

⁴⁶ BOR Resolution 19-03. Action item No. 1 relates to the decommissioning of the Caltech Submillimeter Observatory and the Hokuakea sites. Action item No. 2 relates to establishing a schedule for the decommissioning process of the two sites by December 31, 2021. Action item No. 4 sets a date of December 30, 2025 to determine decommissioning of three (3) additional observatory sites, if required.

conservation lands at Mauna Kea because they do not have the cultural expertise to be stewarding one of the most significant cultural resources to the Native Hawaiian community. On the other hand, there were comments that if the 10,763 acres were to be returned to DLNR to manage, DLNR does not have the resources or capacity to preserve and protect the cultural and natural resources within the preservation area; the resources are better protected under UH. In addition, UH's management, especially by the OMKM Rangers, of the state conservation lands, provides additional protection to the adjacent DLNR's Mauna Kea Ice Age Natural Area Reserve and the State Mauna Kea Forest Reserve.

There is presumption that BLNR is going to renew the state lease to UH for the state conservation lands at Mauna Kea.

We received many comments that the renewal of the state lease to UH is a “done deal” because BLNR would not have approved the sublease to TMT if they did not anticipate renewing the state lease to UH. There were many comments by members of the Native Hawaiian community, that the state process is not fair, and it favors telescope development. For this reason, several of those same community members expressed that they do not trust UH, DLNR, or even the independence of this Report.

Other issues raised that were beyond the scope of the CMP and not fully discussed.

Rather than going into great detail, the following is a list of those issues:

- Use of ceded lands which have been “stolen” from the Hawaiian Kingdom;
- \$1 a year for lease rent does not accurately reflect the market value of the free telescope viewing time to UH;
- Ownership of the access road;
- Role of the Department of Hawaiian Home Lands in the management of Mauna Kea;
- Establish a Mauna Kea Reserve Commission, similar to the Kaho‘olawe Island Reserve Commission, to oversee the management of Mauna Kea;
- There are really more than 13 telescopes on Mauna Kea because some observatories have multiple facilities; and
- The State should use the federal Section 106 consultation process to engage Native Hawaiian individuals and organizations.

EVALUATION PROCESS AND OUTCOME

CMP REPORTING AND EVALUATION REQUIREMENTS

Section 7 of the CMP, describes the natural progression from (1) the MAs that are needed to address the various management needs, (2) that the MAs are organized by topic into four (4) major MCPs, (3) the MCPs were developed using the best available scientific and cultural information and community input, to support the **mission** to preserve, protect and enhance the cultural and natural resources within the UH Management Areas, and (4) each MCP emphasized the importance of coordinating with other agencies, adjacent landowners, and other stakeholders, including cultural practitioners and families with cultural or lineal connections to Mauna Kea to incorporate Native Hawaiian cultural values and traditional knowledge into management planning and activities.⁴⁷

The Mission of the Office of Mauna Kea Management is to achieve harmony, balance and trust in the sustainable management and stewardship of Mauna Kea Science Reserve through community involvement and programs that protect, preserve and enhance the natural, cultural and recreational resources of Maunakea while providing a world-class center dedicated to education, research and astronomy.

Section 7.4.2 of the CMP outlines the process for monitoring, evaluating, and updating the CMP to meet the “desired outcomes”⁴⁸ as set forth in the CMP. The purpose of the desired outcome is to “determine whether management actions are achieving the goals of the CMP and to provide a process for improving and updating management strategies through evaluation and revisions of the CMP.”⁴⁹ To determine whether the desired outcomes have been achieved, the CMP requires regular monitoring⁵⁰ and evaluation⁵¹ of the CMP to determine if the management actions are effective over time and are meeting management needs to ensure the best possible protection is afforded Mauna Kea’s resources. Pursuant to the adaptive management approach, evaluations should be done annually with review and revisions occurring every 5 years as updated information on the resources become known. Five-year evaluations and revisions should include consultation with federal and state agencies and the local community, to

⁴⁷ CMP, page 7-1.

⁴⁸ “Desired Outcome” summarizes the goal(s) of the management component plans. CMP, page 7-1.

⁴⁹ CMP, page 7-63.

⁵⁰ MA MEU-1 requires “OMKM to provide an annual progress report describing in detail the management goals, objectives, and actions for the year and what progress was made towards meeting them. The Progress Report should also describe actions to be taken to improve the program for the next year(s). The Progress Report is not intended to be a status report on the resources in the UH Management Areas; rather, it is meant to inform management and stakeholders of the progress of the program and direction it is to take in the future.” In addition, MEU-1 requires OMKM to provide Five Year Outcome Analysis Reports. CMP, at page 7.65.

⁵¹ MA MEU-2 provides that the CMP should be updated every five years, based on data collected during various program management activities (e.g. natural or cultural resources monitoring, research projects). Id.

inform stakeholders on program progress, and to gather input on changes or additions to management activities.

While OMKM has submitted annual reports to BLNR on their implementation of the MAs, OMKM has not prepared the Five-Year Outcome Analysis Report (Analysis Report). Presumably, the Analysis Report would have utilized the adaptive management approach and summarized the data collected during the monitoring and research studies to determine the effectiveness of the management actions on preserving and protecting the resources on Mauna Kea. Thus, in the absence of the Analysis Report, we had to utilize an alternative evaluation model to conduct the independent evaluation.

THE LOGIC MODEL METHOD WAS USED TO CONDUCT THE INDEPENDENT EVALUATION

Based upon the Project Team's experience and expertise, a Logic Model⁵² approach was determined to be the most appropriate to conduct the independent evaluation of OMKM's implementation of the CMP. This model specifically focuses on whether the MAs that were completed (output) by OMKM achieved the desired outcomes as set forth in each of the MCPs. Each MCP identified MAs to address the needs⁵³ in order to achieve the desired outcomes.

There are four (4) MCPs:

- 7.1 Understanding and protecting Mauna Kea's Cultural and Natural Resources
 - 7.1.1 Native Hawaiian Cultural Resources
 - 7.1.2 Natural Resources
 - 7.1.3 Education and Outreach
 - 7.1.4 Astronomy Resources
- 7.2 Managing Access, Activities and Uses
 - 7.2.1 Activities and Use
 - 7.2.2 Permitting and Enforcement

⁵² A logic model is a systematic and visual way to present and share an understanding of the relationship among resources that were chosen to operate your program, the activities you plan, and the changes or results you hope to achieve." W.K. Kellogg Foundation 2004, <http://toolkit.pellinstitute.org/evaluation-guide/plan-budget/using-a-logic-model/>

⁵³ The CMP defines "Need" as the background information on what type of management actions are needed to achieve the desired outcome and why they are needed. To achieve the desired outcomes, management needs were developed in four areas: education, information gathering, management measures, and rules and enforcement.

- 7.3 Managing the Built Environment
 - 7.3.1 Infrastructure and Maintenance
 - 7.3.2 Construction Guidelines
 - 7.3.3 Site Recycling, Decommissioning, Demolition and Restoration
 - 7.3.4 Considering Future Land Use
- 7.4 Managing Operations
 - 7.4.1 Operations and Implementation
 - 7.4.2 Monitoring, Evaluation, and Updates

For the independent evaluation, the Project Team reviewed, (1) the MCP MAs and desired outcomes, (2) OMKM's implementation of the MAs based upon their annual reports and updates, (3) public input based upon comments provided through the website, the three virtual community meetings, and stakeholder input, and (4) the specific impact of OMKM's actions to achieve the desired outcomes. The details of these reviews are included in Appendix B.

However, for ease of review, we have prepared a Summary of the Independent Evaluation for each MCP in tables below. Each table has five columns as shown:

MCP Section and Desired Outcome	OMKM Implementation Status	Public Input	Independent Evaluation of Impact on Outcome	Recommendations
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The content of each column is described below:

1. The ***MCP Section and Desired Outcome*** as specifically provided in the CMP;
2. The ***OMKM Implementation Status*** shows the total number of actions or activities implemented in that specific section and the action status reported in the OMKM 2020 Annual Report;⁵⁴
3. ***Public⁵⁵ Input*** summarizes a range of some of the comments we received from the three virtual community meetings, comments, website, and stakeholder meetings;

⁵⁴ OMKM 2020 Annual Report to the Board of Land and Natural Resources, Status of the Implementation of the Mauna Kea Comprehensive Management Plan. See Appendix A.7

⁵⁵ "Public" includes interested stakeholders and general public. See Section titled "Stakeholders and General Public" and Appendix A1.

4. The ***Independent Evaluation of Impact on Outcome*** is a qualitative assessment by the Project Team based primarily on public input.⁵⁶ Three levels are indicated: “**Good progress on achieving Outcome,**” “**Some progress on achieving Outcome,**” and “**Minimal progress on achieving Outcome.**”
5. ***Recommendations*** include the type of metric that could be developed in the CMP revision to track outcomes more quantitatively.

⁵⁶ The CMP utilized key concepts from *adaptive management* in developing the management actions. “*Adaptive management* is defined as a systematic process for continually improving management policies and practices for resource protection by learning from the outcomes of past and current management activities. Adaptive management recognizes that there is a level of uncertainty about the ‘best policy or practice for a particular management issue, and therefore requires that each management decision be revisited in the future to determine if it is providing the desired outcome. Management actions in a plan guided by adaptive management can be viewed as hypotheses and their implementation as test of those hypotheses. Once an action has been completed, the next, equally important, step in an adaptive management protocol is the assessment of the actions effectiveness (results). A review and evaluation of the results allows managers to decide whether to continue the action or to change course. This experimental approach to resource management means that regular feedback guides managers’ decision and ensure that future strategies better define and approach the objective of the management plan.” CMP, page 2-6. Since the CMP had not been previously evaluated based a set of metrics or measures, the Project Team has to rely public and other government agencies input to assess whether OMKM effectively implemented the CMP to achieve the desired outcomes.

Table 1: Summary Table on the Independent Evaluation on Achieving the Desired CMP Outcomes

MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
7.1 Understanding and Protecting Mauna Kea's Cultural and Natural Resources				
7.1.1 Native Hawaiian Cultural Resources: Increase understanding and appreciation of Native Hawaiian history and cultural practices related to Mauna Kea to ensure that these practices are protected and respected. Identify, document the condition of, and protect cultural resources and historic properties in the UH Management Areas.	<p>Of the 14 Actions:</p> <ul style="list-style-type: none"> Five are "ongoing" Nine are "completed." <p>Training and educational programs have been developed. Many cultural practices have been protected with the HAR.</p> <p>HAR Chapter 2-26 was not adopted until January 2020.</p> <p>OMKM placed ads inviting community members to participate in talk story session. KKM hosted one talk story session on matters related to CMP actions, with representatives from DLNR, DHHL, OHA and members of the Native Hawaiian community.</p>	<p>Materials and training programs developed have insufficient content from Native Hawaiian cultural perspectives and materials prepared by OMKM shows a lack of cultural sensitivity and understanding. Cultural stakeholders feel they have not been consulted about content and protocols on cultural issues or practices.</p> <p>KKM review is not sufficient. KKM meetings are not open and they have not consulted with cultural stakeholders.</p> <p>OMKM has removed cultural offerings, ahus, stackings of pōhaku, and cultural features, without consulting with families who have cultural and lineal connections to Mauna Kea, Kūpuna, cultural practitioners, OHA, and other NHOs (hereinafter collectively NHOs). There is a lack of Hawaiian decision making in matters related to identification and protocols related to cultural resources.</p> <p>Cultural and religious practitioners felt the initial draft admin rules violated Art XII, Section 7.</p> <p>There is a lack of cultural presence on Mauna Kea because all you see are observatories.</p> <p>The archaeological documents are not subject to independent scrutiny. The archaeological monitoring reports have not been timely submitted.</p>	<p>Some Progress on Achieving Outcome</p> <p>Specific actions have been completed or are ongoing. However, the admin rules to protect the cultural resources was not codified until January 2020.</p> <p>Unclear if the materials and training programs are sufficient to increase understanding of Native Hawaiian history and cultural practices related to Mauna Kea.</p>	<p>Actions should be completed in a timelier fashion</p> <p>When developing materials related to Native Hawaiian history and cultural practices, NHOs should be involved in developing and reviewing the materials and providing suggestions.</p> <p>There needs to be greater clarity of the role of KKM with respect to engaging and coordinating with NHOs on cultural issues and protocols.</p>

MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
<p>7.1.2 Natural Resources: Increase understanding of the status of natural resources (biotic and abiotic) and identify threats to these resources in order to better protect and preserve unique geological features, ecosystem functions, subalpine and alpine habitats, and biological communities through adaptive management of stressors and threats.</p>	<p>Of the 18 Actions</p> <ul style="list-style-type: none"> • Two are “completed/ongoing” • 15 are “ongoing” • The status of NR-14 requiring use of adaptive management to review programs annually and update CMP every 5 years based on results of program review, is reported as “ongoing.” However, it is unclear if programs have been reviewed annually. Also, there had not been a revision of the CMP since the original. <p>HAR effective January 2020 to limit threats to natural resources.</p> <p>Studies were undertaken, and plans developed and implemented.</p>	<p>OMKM has done a good job managing natural resources by managing invasive species, protecting the wekiu bug habitat, and conducting biological studies.</p> <p>Baseline surveys took time but are especially important to develop long term management programs.</p> <p>Unsure how to access some of the studies.</p> <p>Studies are not subject to public or peer scrutiny.</p>	<p>Good progress on Achieving Desired Outcome</p> <p>OMKM has done a good job at increasing the understanding of the status of natural resources and identifying threats. The public needs to better understand what is being studied and the results of those studies.</p> <p>Over the past ten years are the natural resources on Mauna Kea in better condition? Same? Worse? What needs to be focused on in the next ten years?</p> <p>People need to know how to access studies.</p>	<p>Studies should be easily accessible to the public – available to download online.</p> <p>Develop a Natural Resources Dashboard that shows metrics that track the status of natural resources, for example: annually what is the number of invasive species? Show a report card on the health of the natural resources.</p>

MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
<p>7.1.3 Education & Outreach: Build & maintain a constituency to engage in active and meaningful stewardship of Mauna Kea, through education and involvement of the public, to support, enhance conservation, and sustain the natural, cultural, and astronomical resources of Mauna Kea.</p>	<p>Of the eight Actions</p> <ul style="list-style-type: none"> • Six are “ongoing” • One is “completed/ongoing” • One is “In progress.” <p>Developed orientation program for people working on Mauna Kea.</p> <p>There have been outreach efforts in schools and with volunteers.</p> <p>Output measures provided in the 2020 Annual Report to DLNR:</p> <p>Approximately 1,500 individuals have a current, valid orientation certificate.</p> <p>124 community updates conducted over 12 years, 63 community outreach events conducted over nine years, and 19 symposiums, conferences and special events conducted over eight years. 30 presentations in the Maunakea Speakers Series. 110 OMKM E-newsletters issued over nine years, and 102 Astronomy E-newsletters issued over six years.</p> <p>Two brochures developed and updated, social media presence, YouTube video, and young-people oriented materials.</p> <p>58 projects with 1,493 volunteers conducted over nine years.</p>	<p>There has been little community engagement and outreach. OMKM needs to develop relationships with the broader community beyond their supporters.</p> <p>The public does not know all the good things that are happening on Mauna Kea. UH does not do a good job communicating to the public about the work being done on Mauna Kea.</p> <p>The orientation video lacks Native Hawaiian cultural perspective and sensitivity of the long-standing hurts, pains, and concerns by the Native Hawaiian community on imbalance between protecting cultural resources and pursuing telescope development.</p> <p>Visitors should be required to take the orientation training or video before accessing Mauna Kea summit to ensure a better understanding of the cultural resources on Mauna Kea.</p> <p>OMKM and KKM have not consulted with NHOs in decision making for management of Mauna Kea.</p> <p>The educational materials lack the cultural perspective.</p> <p>There are members of the Native Hawaiian community who do not believe Mauna Kea is sacred and would like to see telescope use continue on Mauna Kea.</p> <p><i>‘Imiloa’s A Hua He Inoa: Hawaiian Culture Based Celestial Naming program is globally known and admired.</i></p>	<p>Minimal progress on Achieving Outcome.</p> <p>A lot of actions have taken place and been documented by OMKM.</p> <p>However, in the actions undertaken it is unclear if the programs have achieved the desired outcome of building and maintaining a larger and/or stronger constituency to steward Mauna Kea.</p> <p>Also, no sense of how far the programs have reached – for example, the number of unique volunteers v. total number at each session.</p>	<p>Outcome measures could include OMKM implementing metrics on the impact their activities have had on building their constituency; whether workers and visitors to Mauna Kea have increased their awareness and appreciation of Mauna Kea’s cultural, historical, and natural resources. In addition, recommend measuring how well the community’s perception of transparency and involvement have changed.</p> <p>In addition to those who work on Mauna Kea, visitors should be required to watch the video to familiarize themselves with the cultural significance of Mauna Kea.</p> <p>Utilize ‘Imiloa Astronomy Center to develop culturally based materials to educate and raise awareness of the cultural and natural resources on Mauna Kea, including the <i>A Hua He Inoa</i> program. Utilize ‘Imiloa Astronomy Center to take a more active role in community outreach.</p>

MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
7.1.4 Astronomy Resources: Maintain Mauna Kea's unique environment that makes it a premiere location for astronomical observation. Operate the scientific reserve as a buffer zone to prevent the intrusion of activities incompatible with the use of the land as a scientific complex or observatory.	Of the two Actions <ul style="list-style-type: none"> Two are "Ongoing" <p>Administrative rules became effective in January 2020.</p> <p>Working on monitoring and minimizing the light pollution, radio frequency interference and dust.</p>	Astronomy stakeholders believe that OMKM is doing a good job in managing the area. <p>They believe that OMKM could have more regular, ongoing communications rather than waiting until big issues arise.</p>	Good progress on Achieving Outcome <p>The Administrative rules were passed to formalize protection of the area for astronomy.</p> <p>Timing could have been faster.</p>	Outcome measures could include an annual survey of astronomical stakeholders tracking how well OMKM has done in maintaining the unique environment of Mauna Kea.
7.2 Managing Access, Activities and Uses				
7.2.1 Activities and Uses: Retain and enhance recreational and cultural activities, ensure regulation of commercial activities, and support scientific studies while maintaining adequate protection of resources, educating users regarding resource sensitivity, and ensuring the health and safety of those visiting or working at Mauna Kea.	Of the 12 Actions <ul style="list-style-type: none"> Eight are "Complete/Ongoing" Four are "Ongoing" <p>Administrative rules became effective in January 2020.</p> <p>OMKM initiated a study in 2019 to assess the capacity for commercial tour operations.</p>	The community is generally positive about how OMKM has maintained and protected the resources on Mauna Kea. The feeling is that the area has improved significantly under the OMKM management. <p>Rangers received many compliments on their knowledge and guidance that they provide to visitors.</p> <p>There needs to be better management limiting the number of cars allowed to drive the access road to the summit. UH is considering a shuttle service to manage access by visitors.</p> <p>Some of the commercial operators conduct their own cultural orientation to their customers to ensure that they conduct themselves in a respectful and appropriate manner when on Mauna Kea.</p>	Good progress on Achieving Outcome <p>The Administrative rules were passed to codify restrictions and regulations.</p> <p>Timing could have been faster.</p>	Outcome measures could include periodic surveys of Mauna Kea visitors, commercial tour operators, and others accessing the site on how well OMKM is managing the area.

MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
7.2.2 Permitting & Enforcement: Achieve compliance with existing and any new policies and regulations designed to manage and minimize human impacts, to preserve and protect Mauna Kea's resources.	Of the eight Actions <ul style="list-style-type: none"> • Six are "Ongoing" • Two are "Completed" Administrative rules became effective in January 2020. Since 2000, there were 103 community engagement and outreach actions taken related to the development of the administrative rules, including updates, consultations, briefings, open houses, and public hearings.	Generally positive feedback on the level of policies and regulations. Positive level of enforcement primarily attributed to the Rangers. Rangers are doing a good job of educating visitors to stay on the trails and not to park their cars where they can damage the natural and cultural resources. There needs to be better management of the commercial operators and increased fees towards management of Mauna Kea resources; as there is unlimited access by recreational users (tourists), yet cultural practitioners are regulated. Lack of coordination and clarity between County enforcement and DOCARE on jurisdiction of access road.	Good progress on Achieving Outcome The Administrative rules were passed to codify restrictions and regulations, but it took over 10 years to adopt the rules.	
7.3 Managing the Built Environment				
7.3.1 Infrastructure and Maintenance: Manage the built environment by implementing an Operations, Monitoring and Maintenance Plan (OMMP) containing specific maintenance strategies and protocols that will result in minimal disruptions to activities and uses, minimize impacts to the resources, and ensure that permittees remain compliant with their CDUP requirements.	Of the 14 Actions <ul style="list-style-type: none"> • Ten are "Ongoing" • Three are "Completed/Ongoing" • One is "In Progress" Administrative rules became effective in January 2020. An Operations Monitoring and Maintenance Plan was reviewed by KKM and approved by MKMB. Procedures have been put in place and studies are being conducted.	Generally positive feedback on how OMKM is managing and maintaining the infrastructure within the area. Many of the existing observatories are incorporating sustainable technologies into their facilities.	Good progress on Achieving Outcome The Administrative rules were passed to codify restrictions and regulations. Timing could have been faster.	Recommend reporting on the outcome of the various studies being conducted and how those studies will be used in the future.
7.3.2 Construction Guidelines: Minimize adverse impacts to resources during all phases of construction, through use of innovative best management practices.	Of the nine Actions <ul style="list-style-type: none"> • Nine are "Ongoing" TMT is the first project requiring construction guidelines. All the guidelines have been included as part of the proposed TMT Management Plan in its CDUA.	Given that construction has yet to begin, no feedback on how well the adverse impacts have been minimized. KKM is reviewing any construction activity that could involve ground disturbance, to ensure cultural resources are not disturbed.	Good progress on Achieving Outcome	

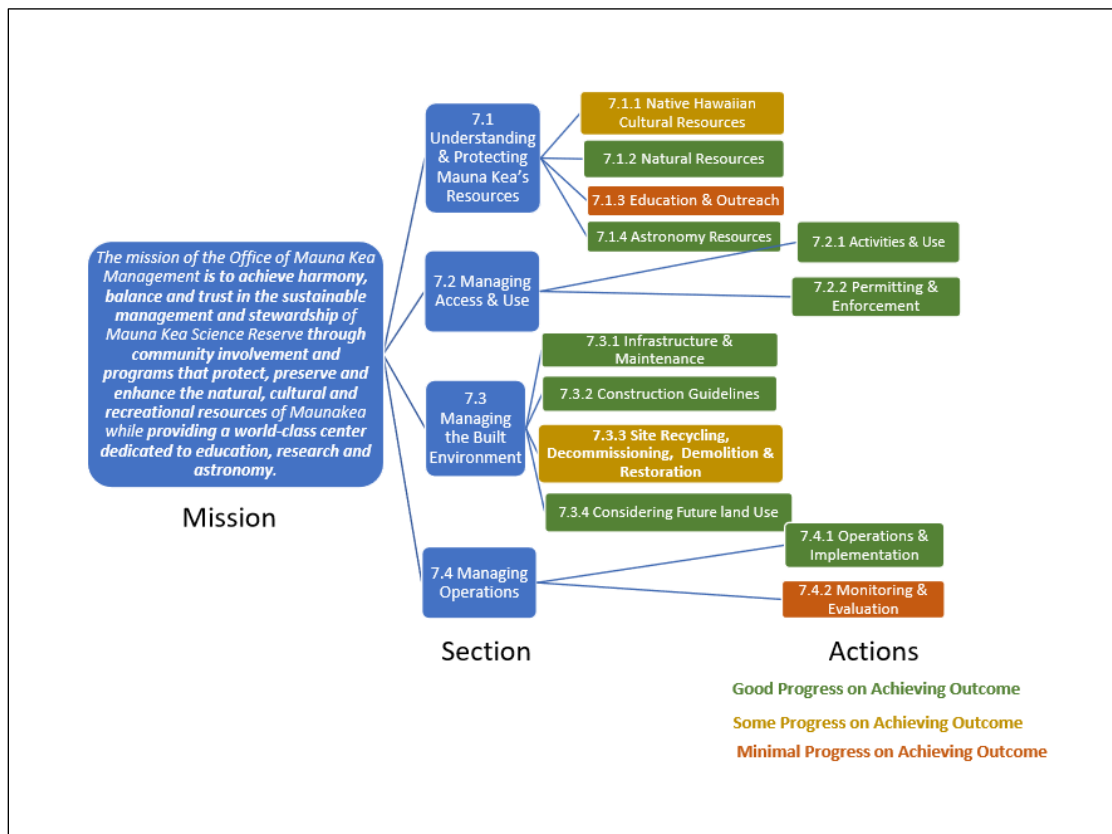
MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
<p>7.3.3 Site Recycling, Decommissioning, Demolition, and Restoration: To the extent possible, reduce the area disturbed by physical structures within the UH Management Areas by upgrading and reusing buildings and equipment at existing locations, removing obsolete facilities, and restoring impacted sites to pre-disturbed condition.</p>	<p>Of the three Actions</p> <ul style="list-style-type: none"> Three are "Ongoing" <p>All the actions have been incorporated into planning for TMT, the first new facility.</p> <p>The 2010 Decommissioning Plan has a defined process. Two of the sites have started the process in 2019.</p>	<p>Feedback has focused on the observatories that are no longer in use on Mauna Kea. Actions to begin the decommissioning process only started in 2019, leaving community members to wonder why it took so long.</p> <p>UH represented/promised to the community no more than 13 telescopes would be built on Mauna Kea. UH should have timely decommissioned some telescopes before new telescopes are constructed (TMT). There is at least one telescope on Mauna Kea that is not in use, but there has been no attempt to remove it.</p> <p>At the end of the state lease in 2032, all the telescopes need to be decommissioned and the site restored.</p> <p>The CMP does not require decommissioning of telescopes that are not obsolete.</p> <p>BOR, through Resolution 19-03, has established a schedule to timely decommission at least two telescopes by December 2021 and a determination whether to decommission possibly three more telescopes by December 2021.</p>	<p>Some Progress on Achieving Outcome</p> <p>Decommissioning requirements included in the TMT Management Plan.</p> <p>Actions on decommissioning some of the sites only began in 2019.</p>	
<p>7.3.4 Considering Future Land Use: To protect cultural and natural resources in the assessment of future projects.</p>	<p>Of the seven Actions</p> <ul style="list-style-type: none"> All seven are "Ongoing" <p>Of the seven actions in the plan, all have been incorporated in planning for TMT, the first new facility.</p> <p>UH President Lassner confirmed that TMT will be the last telescope to be built on undisturbed land.</p>	<p>Community input has been both for and against constructing TMT.</p> <p>TMT is being proposed to be developed in an area that is outside of the 2000 Master Plan because OMKM has not developed a map of land use where development will not be allowed.</p>	<p>Good progress on Achieving Outcome</p>	

MCP Section & Desired Outcome	OMKM's Self-Assessment	Public Input	Independent Evaluation of Impact on Desired Outcome	Recommendations
7.4 Managing Operations				
7.4.1 Operations and Implementation: Conduct effective operations to support management that is focused on resource protection, education, and public safety.	Of the 5 Actions <ul style="list-style-type: none"> Two are "Ongoing" Two are "Completed" One is "Completed/Ongoing" <p>MKMB meets regularly, holds public meetings which includes consultation with KKM. OMKM, KKM and MKMB are responsible for the review of projects proposed for UH's managed lands compliance with DLNR conservation district rules and the CMP.</p> <p>Public can attend the MKMB meetings.</p>	<p>Public comments were mixed on this MA. The observatories feel that OMKM and MKSS are doing a good job with operation and maintenance. Other government agencies, including DLNR, feel that OMKM and the Rangers are doing a really good job managing the land uses to preserve and protect the cultural and natural resources. The Rangers are the "eyes and ears" on Mauna Kea, they ensure public safety for everyone. There has been great improvement since the 1998 Audit report.</p> <p>There were public comments, especially from members of the Native Hawaiian community that there has been no involvement or discussion with the community and stakeholders on resource management.</p> <p>There is disconnect between UH-Hilo Management Entities and UH Systems.</p>	Good progress on Achieving Outcome	
7.4.2 Monitoring, Evaluation, and Updates: Determine whether management actions are achieving the goals of the CMP and provide a process for improving and updating management strategies through evaluation and revisions of the CMP.	Of the three Actions <ul style="list-style-type: none"> Three are "Ongoing" <p>MEU-2 requires OMKM to "conduct regular updates of the CMP that reflect outcomes of the evaluation process, and that incorporate added information about the resources."</p> <p>OMKM is in the process of drafting the 5-year Outcome Analysis Report.</p>	<p>Unclear if OMKM has evaluated whether the CMP actions they have undertaken has made progress on achieving stated Desired Outcomes.</p> <p>The public has not been involved nor provided input into OMKM's annual reports to BLNR.</p> <p>OMKM has not completed a 5-year CMP update since the approval of the CMP.</p>	<p>Minimal progress on Achieving Outcome.</p> <p>If the CMP had been reviewed and updated in a timely manner, it is likely that Outcome measures would have been developed and tracked over time.</p>	<p>Develop appropriate measures to track progress being made toward achieving Desired Outcomes. These measures will serve as indicators of whether progress is being made or if actions need to be adjusted to better achieve the Outcomes.</p>

OVERALL SUMMARY OF OMKM'S IMPLEMENTATION OF THE CMP

The diagram below illustrates how the MCPs of the CMP connect to achieve OMKM's Mission. The color codes are the same as used in the Evaluation of Impact on Outcomes. Under the four (4) MCPs, there are twelve (12) desired outcomes. Overall, good progress was made on achieving eight of the desired outcomes; some progress was made on achieving two of the desired outcomes and minimal progress was made on achieving two of the desired outcomes.

Figure 2: The Links Between the OMKM Mission and MCP Management Actions



AREAS WHERE OMKM HAS NOT EFFECTIVELY IMPLEMENTED THE CMP TO ACHIEVE THE DESIRED OUTCOMES

As noted above, OMKM has made, in some cases, significant strides in implementing the CMP to achieve the desired outcomes, particularly in the areas of the “nuts and bolts” of managing the land uses and activities and supporting astronomy. However, in the areas of Native Hawaiian Cultural Resources, Education and Outreach, decommissioning, and evaluation, OMKM has not effectively achieved the desired outcomes. Based primarily on public input, the

following are some of the significant “disconnects” between OMKM and the public, in particular, the Native Hawaiian community, in achieving the desired outcomes:

Outreach and communications

Insufficient outreach and communications with stakeholders and the community resulted in many not knowing what was taking place on Mauna Kea. For example, OMKM conducted many studies, but stakeholders did not understand how to access them. There is no dashboard that shows the conditions of natural resources on Mauna Kea such as number of invasive species reported, number of visitors, etc. overtime. Accessing documents shared at MKMB meetings requires accessing the OMKM website, and multiple clicks to find the right documents.

Cultural Education

Materials and programs developed to educate staff and visitors about Mauna Kea lacked the Native Hawaiian perspective on its importance. Native Hawaiian practitioners, Families who have cultural or lineal connections to Mauna Kea, and NHOs feel they were not adequately or regularly consulted and/or informed about actions taking place on Mauna Kea.

Failure to timely implement certain MAs

OMKM did not complete many of the actions until recently. The HAR related to Mauna Kea was only approved in January 2020. Likewise, the decommissioning process of two telescopes did not begin until 2019. This lack of progress in decommissioning has diminished the public trust in OMKM’s management of Mauna Kea.

OMKM’s updates do not include metrics to evaluate progress towards achieving the desired outcomes

Plan 7.4.2 requires OMKM to “conduct regular updates of the CMP that reflect outcomes of the evaluation process, and that incorporates new information about the resources.” The annual reports to BLNR update the status of the plans’ actions. It does not address progress made toward achieving the Desired Outcome of the MCP. Evaluation of Desired Outcomes could have led to identifying metrics to track outcomes and improve actions.

CONCLUSION

The purpose of the independent evaluation was to, (1) evaluate the effectiveness of UH, and specifically OMKM's implementation of the MCPs, and (2) evaluate UH's efficiency and the governance structure in managing the cultural and natural resources within the UH Management Areas under the CMP. UH's self-assessment and many of the public comments which included members of the Native Hawaiian community and government agencies, have acknowledged that OMKM has implemented most of the 103 MAs within the MCPs. Many have commented that OMKM has effectively implemented many of the MAs that have resulted in protecting and preserving the cultural and natural resources within the state conservation lands.

However, in the areas of untimely adoption of the administrative rules, cultural resources, and education and community outreach, especially with the Native Hawaiian stakeholders, the efforts by OMKM have been ineffective to achieve the desired outcome. The desired outcome is to increase understanding and appreciation of Native Hawaiian history and cultural practices related to Mauna Kea to ensure that these practices are protected and respected. While there are Native Hawaiians who believe OMKM's actions have been respectful of the Hawaiian culture, the greater sentiment was a deep feeling of disrespect by OMKM's actions in managing Mauna Kea, as well as UH's action in pursuing telescope development over protecting the resources.

With respect to the efficiency of UH's governance structure in managing the state conservation lands at Mauna Kea, the UH BOR appears to be internally addressing this issue through their Resolution 19-03. They have taken steps towards developing a reorganization and restructuring plan that would consider an alternative governance and management mechanisms to improve operations and management to make it more efficient, effective, and transparent.

In conclusion, UH, and specifically OMKM, has implemented most of the CMP MAs, and in many cases, effectively implemented them to achieve the desired outcomes of protecting the resources. Unfortunately, the MA related to cultural resources that was designed to respect the Hawaiian cultural practices and resources, and MA related to education and outreach that was intended to restore trust between UH and the Native Hawaiian community have not been effectively implemented. Management plans are created with the best of intentions; but ultimately, the proof is in the implementation.

COMMENDING CASCA'S DECISION NOT TO SUPPORT TMT WITHOUT NATIVE HAWAIIAN CONSENT

One of the TMT project's biggest and long standing supporters, the Canadian Astronomical Association (CASCA), now proclaims that "unless the TMT project has consent from the Native Hawaiians, Canada's astronomical community cannot support its construction on Maunakea."

One of the TMT project's biggest and long standing supporters, the Canadian Astronomical Association (CASCA), now proclaims:



“Unless the TMT project has consent from the Native Hawaiians, Canada’s astronomical community cannot support its construction on Maunakea.” This statement was shared by Dr. Kim Venn this past Tuesday at CASCA’s Annual Meeting that CASCA is holding online this week. Dr. Venn is one of three Canadian TMT Board Members and a member of the CASCA/ACURA TMT Advisory Committee (CATAC).

Many of us also saw a screenshot of Dr. Venn’s presentation slide shared by Dr. Bryan Gaensler on Twitter. Dr. Gaensler is CASCA’s co-chair of its Long Range Plan 2020 Panel.

Also conveyed in the screenshot shared by Dr. Gaensler of Dr. Venn’s presentation was the following:

“As excited as we are about the scientific potential and engineering excellence of the TMT, we believe that astronomical discovery cannot come at the expense of human rights for the people on whose lands we operate our telescopes — anywhere in the world. This position is consistent with CASCA’s Long Range

In 2019, in response to hundreds of kia'i peacefully assembling to oppose the construction of the TMT, police showed up in force in full riot gear. Photo: Hawai'i Tribune Herald

“Unless the TMT project has consent from the Native Hawaiians, Canada’s astronomical community

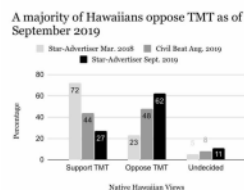
Plan 2020.” Indeed, CASCA’s Long Range Plan (p. 115) notes the following:

“The nature of astronomy is such that sites in isolated or sparsely populated areas often best meet the scientific requirements for experiments and observatories. As a consequence, astronomy has long benefited from building telescopes and other facilities on carefully chosen locations in Canada and throughout the world (e.g., Hawai‘i, South Africa, Australia, Chile). However, these same sites often either belong to or have substantial cultural, environmental or economic significance to Indigenous Peoples, traditional title holders or other long standing local communities.

“There have been many instances when astronomy projects have gone ahead over the objections of Indigenous Peoples, or where commitments or promises made by astronomers to local communities have not been fully met. Looking to the future, Canadian astronomers must ensure that their ethics and values apply to the interactions with society that result from the creation and operation of astronomical facilities. The astronomy community must consequently engage meaningfully and

cannot support its construction on Maunakea.”

– Dr. Kim Venn, TMT board member, and a member of the CASCA/ACURA TMT Advisory Committee (CATAC)



*TMT proponents often like to cite poll data showing support for the project. However, poll data from the **Star Advertiser** and the **Civil Beat** over a*

sincerely with Indigenous and local communities as soon as potential projects are conceived, should seek consent from those who would be affected before proceeding with a project, and must sustain engagement and consent throughout the lifetime of projects that go forward.”

As a result, the CASCA Long Range Plan (p. 16) offers this conclusion:

“We recommend that the Canadian astronomical community (e.g., ACURA, CASCA and NRC-HAA) work together with Indigenous representatives and other relevant communities to develop and adopt a set of comprehensive guiding principles for the locations of astronomy facilities and associated infrastructure in which Canada participates. These principles should be centred on consent from the Indigenous Peoples and traditional title holders who would be affected by any astronomy project. In addition, when such consent does not exist, the principles should recognize that the use or threat of force is an unacceptable avenue for developing or accessing an astronomical site. The principles should also acknowledge that

period of two years actually shows eroding support, and in the case of Native Hawaiians, outright opposition.

ongoing consent from Indigenous Peoples and continuing consultation with all relevant local communities are both essential throughout a project's lifetime. These principles should be developed as soon as possible, and then applied to all future Canadian participation in new or existing astronomical programs, projects and national and international facilities. Engagement and implementation should be consistent with the spirit of the Calls to Action of the Truth and Reconciliation Commission of Canada and of the United Nations Declaration on the Rights of Indigenous Peoples."

We commend CASCA and its members who are affirming that absent consent of Native Hawaiians, the TMT cannot be built and that the use or threat of violence is not an acceptable course of action to access astronomical sites.

Links:

- CASCA website: <https://casca.ca/>
- TMT Board Members: <https://www.tmt.org/page/governance>
- CASCA's Long Range Plan: https://casca.ca/wp-content/uploads/2021/04/20UOT001_CASCA_LRP_EN_vFA2.0.pdf

- Truth and Reconciliation Commission of Canada: <https://www.rcaanc-cirnac.gc.ca/eng/1450124405592/1529106060525>
- Truth and Reconciliation Commission of Canada, Calls to Action: http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf
- United Nations Declaration on the Rights of Indigenous Peoples: <https://undocs.org/A/RES/61/295>

04:00

No ku'u lāhui e hā'awi pau a i ola mau. Video: Mikey Inouye

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:)
A Contested Case Hearing Re: Conservation District) CERTIFICATE OF SERVICE
Use Permit (CDUP) HA-3568)

CERTIFICATE OF SERVICE

We hereby certify that a copy of the foregoing was served on the following via email unless otherwise specified below:

Bin C. Li,
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Honolulu, HI 96813
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